

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

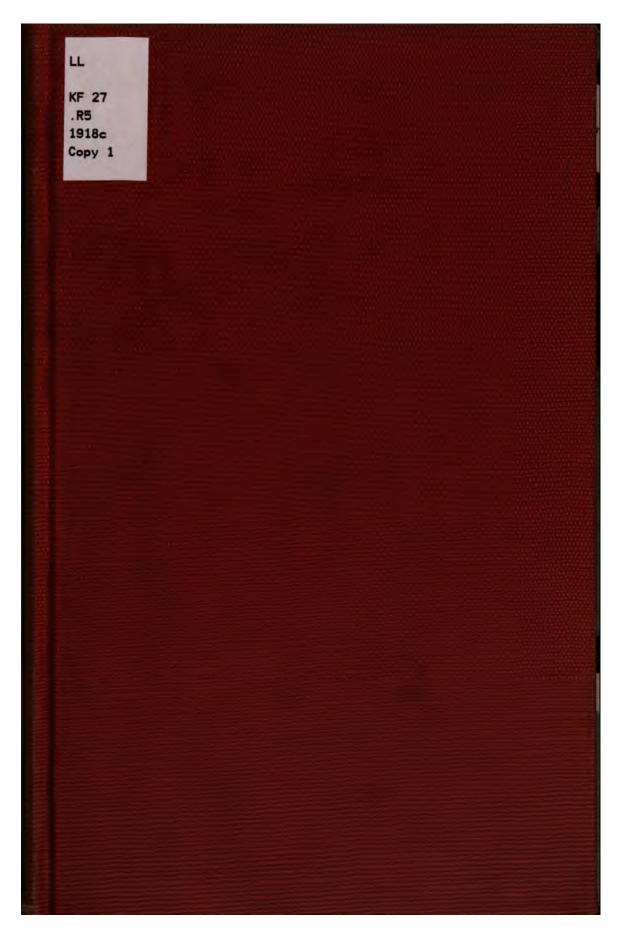
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + Refrain from automated querying Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

#### **About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at http://books.google.com/



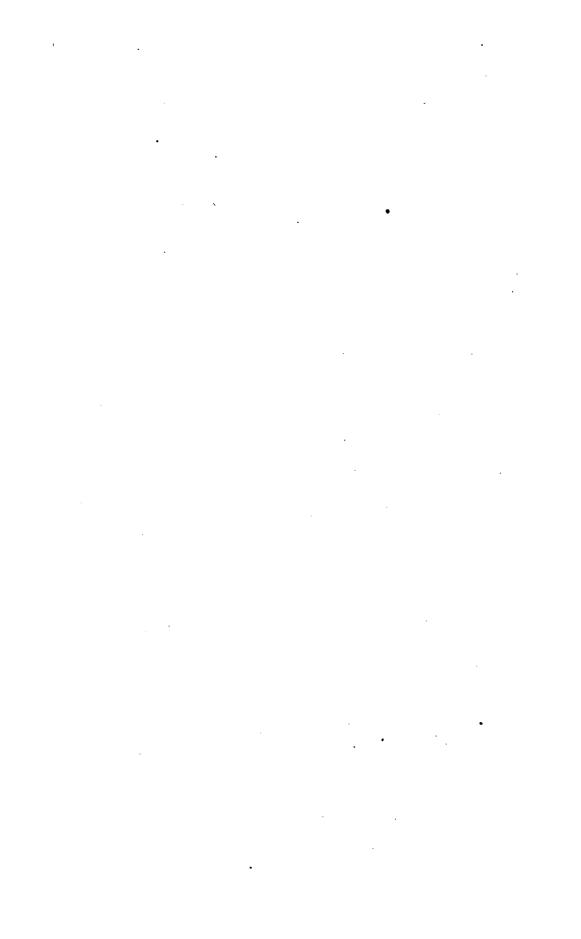




Glass H E 393
Book , A 13
1918a



• . • 



. · . 

• • . •

# RIVER AND HARBOR APPROPRIATION BILL

## **HEARINGS**

ON

### H. R. 10069

HELD BEFORE THE

Mis, Congress For

## COMMITTEE ON RIVERS AND HARBORS

### HOUSE OF REPRESENTATIVES

SIXTY-FIFTH CONGRESS

SECOND SESSION

5/2

CONSISTING OF

Par14/2

JOHN H. SMALL, North Carolina, Chairman.

CHARLES F. BOOHER, Missouri. THOMAS GALLAGHER, Illinois. THOMAS J. SCULLY, New Jersey. WILLIAM KETTNER, California. SAMUEL M. TAYLOR, Arkansas. H. GARLAND DUPRE, Louisiana. MARTIN DIES, Texas. OSCAR L. GRAY, Alabama. GEORGE K. DENTON, Indiana. HUBERT F. FISHER, Tennessee.

CHARLES A. KENNEDY, Iowa.
ROBERT M. SWITZER, Ohio.
JAMES A. FREAR, Wisconsin.
DOW, H. DRUKKER, New Jersey.
PETER E. COSTELLO, Pennsylvania.
S. WALLACE DEMPSEY, New York.
HENRY I. EMERSON, Ohio.
HENRY Z. OSBORNE, California.
RICHARD P. FREEMAN, Connecticut.

SAMUEL S. MANN, Clerk.

JOSEPH II. McGANN, Assistant Clerk.

JANUARY 4, 5, 7, 8, 9, 11, 12, 14, 15, and 16, 1918



WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

HE 393 1918 a

D. of D. AUG 9 1918

### RIVER AND HARBOR APPROPRIATION BILL.

COMMITTEE ON RIVERS AND HARBORS, HOUSE OF REPRESENTATIVES, Washington, D. C., Friday, January 4, 1918.

The committee proceeded at 11.15 o'clock a. m. to hearing on the estimates, Hon. John H. Small (chairman) presiding.

# STATEMENT OF COL. HENRY C. NEWCOMER, ASSISTANT TO THE CHIEF OF ENGINEERS, UNITED STATES ARMY.

The CHAIRMAN. First take up the Portland (Me.) district. There are no estimates for the Portland district. The first estimate is in the Boston district, for Boston Harbor, \$40,000 for maintenance. Colonel, will you state to the committee the purpose and necessity for that estimated appropriation.

Mr. Frear. That is for maintenance?

Col. Newcomer. That is simply for maintenance; yes, sir.

Mr. Kennedy. Did not we adopt a new project for Boston Harbor last year?

Col. Newcomer. Yes, sir.

Mr. Kennedy. Why is not any estimate made for work on that

project?

Col. Newcomer. It was not proposed at that time to prosecute the work, except possibly as it might be done in connection with maintenance from time to time. No appropriation was made when the project was adopted for its execution.

Mr. Kennedy. I know that, but I supposed that when it was adopted in the last bill as an emergency measure, a recommendation would be made for an appropriation in this bill to prosecute the

work.

Col. Newcomer. No appropriation was estimated for at this time, for the same reason that it was not estimated for at the time the project was authorized. It was not considered of sufficient emergency to require its prosecution under war conditions. You recall that the purpose of that project was to provide additional depth at the outer entrance to the harbor. We have got a 35-foot project, and it was thought it would be well in a harbor of as great importance as that of Boston to provide an entrance in the outer portion, where it is subject to all forces, which would permit boats to enter at all conditions of storm weather, so that they could pass through to the inner channels which provide 35 feet. Of course, by observing the tides, boats can do that now. It is simply a question of a few hours delay for them to come through even under storm conditions. For that reason it was not considered of sufficient importance to recommend an appropriation. 3

Mr. Kennedy. What I had in my mind was, if it was thought of sufficient importance to incorporate in the last bill as a preparedness measure, certainly it would be of sufficient importance to appropriate funds for carrying on the work.

Col Newcomer. The same argument, of course, applied last year,

but it was not effective.

The CHAIRMAN. The next is the Newport, Rhode Island, district. The first estimate for an appropriation there is for New Bedford

and Fairhaven harbors, Mass., \$15,000.

Col. Newcomer. That is, as you will observe, a very small amount required for the maintenance of channels that accommodate a very important commerce. It is only for maintenance that the fund is requested.

Mr. Kettner. And necessary in this bill, in your opinion?

Col. Newcomer. I think it should be provided.

The CHAIRMAN. The next item in the Newport District contains the estimate for Pawtucket River in Rhode Island, of \$10,000 for maintenance.

Col. Newcomer. That is an extension, really, of Providence Harbor, and the project depth is 16 feet. That has should somewhat and this estimate of \$10,000 is required to restore the project depth. In that case, also, you have quite an important commerce—over half

a million tons annually.

The CHAIRMAN. The next is the New London, Connecticut, district. Col. Newcomer. There are two items, Pawcatuck River the first item on the page is an estimate for \$2,500 for further improvement. The reason for that is that some bowlders have been discovered in the channel which should be removed in order to take full advantage of the channel depth that is generally available in the stream. You could not put it under maintenance, because being bowlders embedded in the bottom they have been there for some time substantially always; the project, in other words, is not completed at this point. These few bowlders interfere materially, and we have thought it advisable to remove them.

The \$15,000 for the Connecticut River below Hartford, is for the maintenance of that 12-foot channel up to Hartford. They have there a very substantial commerce, and it is a river where shoaling takes place annually and funds have to be provided for its annual removal.

In New Haven Harbor, on page 5, there is an estimate of \$14.006 for maintenance, and similarly you notice there the commerce is very considerable, and it is important that you maintain the project dimensions. The same is true of the Housatonic River, \$8,000. You will notice quite a number of items here under maintenance where no funds are required; the amount on hand being considered sufficient.

Mr. Frear. The amount appropriated in those cases ordinarily is about the same as the balances on hand. That is about an average

amount that is spent?

Col. Newcomer. Yes, sir.

The CHAIRMAN. The next is New York district. The first estimate there is for East River and Hell Gate, \$2,200,000. We would be glad to hear from you about that, Colonel.

Col. Newcomer. Congress, at its last session, adopted the 40-foot project for East River and Hell Gate, and provided the funds for the first step in the 40 foot depth through Diamond Reef, the channel from Upper New York Bay to Brooklyn Navy Yard, and only provided the funds that were necessary to afford a practicable channel of 35 feet through Hell Gate. The amounts requested here are for the further prosecution of the 35-foot work at Hell Gate, and to the east of that where a number of lumps or pinacles of rock have got to be removed. That is given in some detail on page 224, the total amount requested being \$2,500,000, of which \$300,000 is the balance of a continuing contract authorization.

The CHAIRMAN. Has the channel across Coenties Reef been com-

pleted?

Col. Newcomer. Not yet.

The CHAIRMAN. It was thought it would be completed last year. Col Newcomer. I did not know that had been expected. I think the contract time is not yet up. But there has been some delay and they are not making as good progress as anticipated. The drilling and blasting, I suppose, is three-quarters completed, but a small part only of the rock has been taken out.

Mr. Frear. With \$1,832,000 on hand, you believe this \$2,200,000

ought to be appropriated at this time, do you?

Col. Newcomer. Yes; we consider that advisable, to appropriate that amount. That work, of course, is of a very expensive type, the removal of rock and, of course, the costs are very high.

Mr. Frear. I mean it can be used at this time—that amount of

monev.

Col. Newcomer. Yes; we consider it can probably be expended

in the time intervening between now and the next bill.

Mr. Frear. We discussed the merits of it quite freely last time. Col. Newcomer. Yes. I would like to explain to the committee the attitude the department has taken in regard to this improvement, because the point has been raised by Mr. Hulbert that we are not proceeding at once with the 40-foot depth through Hell Gate. You will recall the situation as it developed last year, that the committee at first proposed to authorize only 35 feet through Hell Gate and 40 feet through the channel to the navy yard from Diamond Reef, but due to the insistence of certain interests, and I think the Secretary of the Navy recommended it also, the committee concluded it should authorize the 40-foot project at that time, although I did not understand it was the intention or expectation of the committee that anything more than the provision of 35 feet through Hell Gate would be attempted now, because the estimate which was provided was an estimate for 35 feet. And in fact the naval board which passed on this matter of the channels required for the operations of the fleet of defense said 35 feet through Hell Gate, to be increased ultimately to 40 feet. I would like to have the committee observe the statement of the existing project, page 221. We have, after considerable thought, expressed the existing project and stated it as given there, and I would like to have the committee observe it.

"The existing project provides for a channel from deep water in the upper bay to the Brooklyn Navy Yard 40 feet deep and 1,000

feet wide ":--

You see we provide there at once for 40 feet—

"for a channel from Brooklyn Navy Yard to Throgs Neck 35 feet deep, with widths varying from about 550 feet to 1,000 feet,

according to locality, to be deepened ultimately to 40 feet; for a channel east of Blackwells Island 20 feet deep and from 500 to 700 feet wide, to be deepened ultimately to 30 feet; for a channel 20 feet deep and 300 feet wide between South Brother and Berrian Islands; for the removal of Coenties Reef to a depth of 40 feet, local interests paying the cost of the work below a depth of 35 feet; for the removal of Corlears Reef to a depth of 30 feet, to be deepened ultimately to 40 feet; for the removal of north point of North Brother Island and of the rocks off Port Morris and Barretto Point to a depth of 35 feet, of Port Morris Shoal to a depth of 30 feet, of Rhinelander Reef to a depth of 26 feet, and of isolated rocks to a depth of 30 feet; for giving access to wharves off the Battery and along the Brooklyn shore below Blackwells Island to a depth of 30 feet, and along the north shore below Blackwells Island to a depth of 25 feet; for two dikes, the one connecting Great and Little Mill Rocks and the other connecting the channel between Bread and Cheese Reef and Blackwell Island; and for the collection and removal of drift.'

Now, we arrived at that statement of the project by basing it for immediate work upon the 40 feet through Diamond Reef, and for the rest of the work upon the project that was submitted by Gen. Black when he was the district engineer and which was adopted by Congress as one of the documents in last year's report, which called for 35 feet; and for most of those items that I have mentioned here, the ultimate deepening to 40 feet was superimposed upon that by virtue of Congress authorizing a depth of 40 feet, which we understood to be ultimately; not as an immediate procedure.

Mr. Frear. In other words, Colonel, all these improvements are necessary in developing the harbor—that is, these various steps you

have mentioned?

Col. Newcomer. Yes. It was quite a comprehensive document submitted, showing the needs of the various parts, and that was considered to be the basis for the work immediately to be undertaken.

Mr. Switzer. All this would have to be done; that is, in finally

obtaining the 40-foot depth.

Col. Newcomer. We understand that the question of when the 40-foot depth should be provided should be left to the future entirely; in other words, whenever circumstances develop which indicate a need for that, then the estimates could be submitted under authority already given, and Congress will determine, of course, whether it is ready to proceed with the 40-foot project.

Mr. FREAR. What was the reason for local interests being required to pay for the depth beyond 35 feet in the channel through Coenties

Reef?

Col. Newcomer. That was some work that had to be done immediately. They are tunneling under the river, and that was some emergency work.

Mr. Frear. Yes, I now remember.

Col. Newcomer. The local parties were driving this tunnel, and this rock the removal of which would have to be undertaken later, anyway, had to be undertaken at that time; and for that reason Congress took it up at that time and authorized the work to be done and the local parties agreed to pay the cost of deepening the channel below the 35-foot depth.

The CHAIRMAN. The recommendation at that time was only for 35 feet.

Col. Newcomer. Yes.

The CHAIRMAN. But in view of the fact that it was contemplated at some time in the future the project depth might be increased to 40 feet, and as this was over a tunnel under the river the city said: "In order to get the 40-foot depth now, we will pay the difference in cost between 35 feet and 40 feet."

Mr. Kettner. Mr. Chairman, to clear up a point in my mind, the way I understand Col. Newcomer now is that the department has only recommended in this bill what is absolutely necessary for emergency purposes; in other words, they are putting off everything until prices become normal that does not affect the country at this

time. Am I right?

Col. Newcomer. Substantially. In other words, in framing the estimates as they are in here in the annual report, we considered the funds on hand and the condition of the channel, as to whether emergency work was necessary or not, and the fact that the next appropriation would probably be available by the 4th of March, 1919. And in that way we made a substantial reduction in the estimates submitted by the district engineers. We made an effort to pare the estimates down to the lowest possible limit, and at the same time, however, provide what seemed to us to be essential for the present needs.

I might state in this connection that the high prices, the difficulty of getting men and materials, and the changes in organization incident to the war have all tended to impede our work somewhat. Take this work up there, for instance: Col. Taylor had charge of this East River work; at the outbreak of the war he was promptly taken away and sent over to France and the work was put in charge of an officer on the retired list. And, by the way, this officer's health has failed and he has had to be relieved and some other officer has been put in charge. And the same way with several other improvement works; there have been several important changes made in the last several months, and that, of course, all tended to retard our work.

The CHAIRMAN. These estimates we are now considering are the final estimates of the Chief of Engineers and they all represent reductions from the estimates of the district engineers, some more and

some less, depending upon the conditions.

Col. Newcomer. Yes.

(Thereupon, at 11.45 o'clock a. m., the committee adjourned until to-morrow, Saturday, January 5, 1918, at 10.30 o'clock a. m.)

Committee on Rivers and Harbors, House of Representatives, Washington, D. C., Saturday, January 5, 1918.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. John H. Small (chairman) presiding, and resumed the hearing on the estimates submitted by the Chief of Engineers.

The CHAIRMAN. I think we closed yesterday with the East River,

did we not?

Col. Newcomer. Yes; East River and Hell Gate was the last item considered.

The CHAIRMAN. The next item is Hudson River Channel, New York Harbor, further improvement, \$200,000. Colonel, will you make the necessary comments on the Hudson River Channel.

#### STATEMENT OF COL. HENRY C. NEWCOMER—Resumed.

Col. Newcomer. We are working now on the removal of the shoals along the Manhattan shore, between West Nineteenth and West Sixty-first Streets. That is a work that you authorized at the last session of Congress. We have two sea-going dredges working on that and have enough funds probably to complete that part. Another part of the improvement recommended and adopted at the same time is the widening of the main channel from Canal Street down to the Battery. There is a part of that channel where the width is less than 2,000 feet, which is considered essential for the movement of these big boats, and we have asked for this \$200,000 which will be applied on that work, for the widening of that channel. The estimated amount required to complete is about \$1,000,000. We only estimated for the \$200,000 at this time because we think that will be sufficient to carry those dredges through until the next appropriation becomes available.

The CHAIRMAN. How near to the shore line there are you dredg-

ing?

Col. Newcomer. We are dredging New York Harbor to the ends of the piers; that is, to the pierhead line. Of course, some of the piers may not come out to that. We dredge to the pierhead line, and all dredging inside of the pierhead line, of the slips, etc., is

taken care of by the city.

This work we are now doing up there, you recall, provides for that big new pier which the city built, of sufficient length to accommodate the biggest boats afloat. You remember a great controversy up there about some big boats landing at the piers below, where they extended out into the waterway, or else they had to make extensions of the piers to protect them, and thus narrow the channel at that point.

The CHAIRMAN. Yes. When will the work be sufficiently com-

pleted to enable those large ships to approach that pier?

Col. Newcomer. That will be done, I think, in two or three

months now.

The CHAIRMAN. That is regarded as rather important, to expedite that work?

Col. Newcomer. We are proceeding with that as rapidly as possible

Mr. Kettner. I understand the pier is finished.

Col. Newcomer. The pier is finished and the city is dredging in the slip alongside, and we are dredging outside to give access to the

pier.

Mr. Frear. I desire to make an inquiry, before we leave this other item. There is a star under that Hudson River item, where it is stated that \$235,000 is carried in the sundry civil bill. How does that come about; has the authorization already been made?

Col. Newcomer. Yes, sir; that item of \$235,000 in the sundry civil bill completes the contract authorization which was granted here a couple of years ago.

The CHAIRMAN. The next item is Narrows of Lake Champlain,

N. Y., and Vt., \$200,000.

Col. Newcomer. That project was one of the new ones adopted in the last bill, and is one of the emergency projects, particularly for giving an outlet for the iron ores that come to Lake Champlain at Port Henry. The amount asked for is the amount we believe can be expended advantageously. You see it is a little less than half of the estimated amount required to complete; but that amount, and the amount on hand it is believed will serve the immediate needs and will put the work in quite fair condition. It will give the project depth throughout but less than the project width.

The CHAIRMAN. We now come to the second New York district, and the first estimate there is for the channel between Staten Island

and Hoffman and Swinburne Islands, \$75,000.

Col. Newcomer. That item is for the improvement adopted in the last act, for which \$50,000 only was appropriated. This \$75,000 is necessary in order to carry the work as far as the first island. You remember there are two islands there that are to be reached by this quarantine service.

Mr. Frear. Colonel, what have you to say about the importance of the last item of Lake Champlain compared to this one; that is,

the importance between the two at this time.

Col. NECOMER. This one of Lake Champlain is one that was considered a war measure, and this is simply continuing that so as to make it more effective.

Mr. Frear. You say "a war measure"; you mean recommended

by the War Department?

Col. Newcomer. Especially recommended and included in last year's bill.

Mr. Frear. I know it was included in last year's bill.

Col. Newcomer. It is a war measure particularly on account of the ore situation.

Mr. FREAR. You spoke about iron ore; from where does that come? Col. Newcomer. It comes from near Port Henry. There are quite large deposits there.

Mr. Frear. You think this is also important?

Col Newcomer. I do. I consider it essential to carry on that work so as to get an effective channel. The amount we have already on hand will remedy one of the worst places on that channel. There is a very sharp turn, called the Elbow, where it is impossible to take large tows around, and we are going to get rid of that with the appropriation we have on hand; but to get the project depth throughout with reduced width we need this additional money.

Mr. Frear. This says nothing has been done on that project yet.

Col. Newcomer. That is right.

Mr. Frear. An appropriation of \$50,000 was made last time and \$75,000 is asked for now.

Col. Newcomer. You are talking about the next item.

Mr. FREAR. Yes. Why was not the whole appropriation for \$125,000 made or asked for? I mean, what is the purpose of dividing it up that way?

Col. Newcomer. It was substantially parceled out with the idea of distributing the amount to be given to New York Harbor. It was considered that this amount was all that could be spared at that time. Of course, that was really determined by the committee. You remember there were quite large appropriations made for New York and the committee thought that this work should be begun.

Mr. Frear. Nothing has been done on it, however.

Col. Newcomer. Specifications have been prepared and the work advertised.

Mr. Frear. Yes; but I notice that nothing has been done on the project.

Col. Newcomer. Yes, that is right.

The CHAIRMAN. The original report on this channel between Staten, Hoffman, and Swinburne Islands seems to indicate that the main necessity was to accommodate the quarantine station. And the suggestion has been made from some source, I forget what just now, that it has really a commercial value in addition. Are you informed as to that?

Col. Newcomer. I do not think it has any commercial value aside from its bearing on this quarantine service. It was alleged by some that the channel could be used for some of the coal boats from Perth Amboy around Staten Island; but I do not think this is a sound view.

Mr. Kettner. I was informed that this channel was open now, while the other channel which has been used for the coal boats was frozen. Is that a fact?

Col. Newcomer. It is quite possible they may come around through the lower bay from Perth Amboy; but I do not believe they come through here at this particular point. That channel, I understand, remains open longer than the Arthur Kill, which is quite narrow and more apt to freeze over. But this particular channel, as you will find here on this map, does not lead anywhere except to this island, and it is necessary for the quarantine boats passing to and from the quarantine station.

The CHAIRMAN. The next item for which an estimate is made is

Newtown Creek, N. Y.; \$15,000.

Col. Newcomer. That is simply for maintenance. It is a small sum, but there is a very big commerce.

Mr. Kennedy. What is the condition of that harbor at the Flushing Bay project?

Col. Newcomer. What is the condition?

Mr. Kennedy. What is the condition. Oh, I see: Getting a right

of way; work suspended pending getting the right of way.

Col. Newcomer. I will have to look that up. I think that must be a mistake. I see that the point raised by Mr. Kennedy is explained on page 289 of the annual report. "Work on the project has been suspended pending the granting to the United States of a right of way in certain sections of the creek."

The channel comes up through Flushing Bay and then into Flushing Creek, passing through one or two bridges, and apparently there is a hitch there—certain rights of way that have not been granted in the creek above. That has not been brought to my attention in recent months at all so that I do not know the present status of it. I do

not think there is any particular urgency about it, because there are no steps in progress now of which I am aware.

The CHAIRMAN. The next item for which an estimate is made is

Mattituck Harbor, N. Y., \$5,000.

Col. Newcomer. That is simply the amount required, in addition to the funds on hand, to restore the channel to the project depth—an item for maintenance.

Mr. Kennedy. I was just wondering what is the character of the

work the city is doing in Jamaica Bay.

Col. Newcomer. The city has done very little. You know that was a case where the city prepared very elaborate plans for the development of a deep-sea port and the United States was to cooperate by providing the entrance and the main interior channel, and all of the subsidiary channels, wharves, piers, etc., to be built by the city. The United States adopted the project and appropriated a large sum of money. You see we still have quite a large balance on hand. We went ahead and provided the first step; in other words, provided an 18-foot entrance and an 18-foot channel inside, and the city did practically nothing. They were supposed to acquire the real estate there, and at that time the land was supposed to have very little value, so that the city could well afford to go in there and acquire this practically useless property. But as I understand, the city has acquired practically none of the property. They have gone ahead and built one subsidiary channel, but of small depth, however, 15 feet; so that the project, as it now stands, is not a satisfactory project, and the recommendation has been made—you will find it referred to on page 303—whereby the work will be carried forward on a less extensive scale than was originally contemplated.

Mr. Frear. What is the object of continuing that when the city refuses to perform its part of the work, and is not that really a real estate proposition and so intended when it was put in, colonel?

Col. Newcomer. Of course, there have been charges made that it was a real estate proposition.

Mr. Frear. I think they were fairly well substantiated.

Col. Newcomer. At the same time the city of New York and various substantial commercial bodies up there recommended the project, and had it been carried out as originally planned it doubtless would have been really of commercial value. But for some reason, I do not understand why, the city did not take the steps which it was expected to take. There is some commercial development there, but on relatively a small scale; in other words, only for handling local traffic instead of seagoing traffic.

Mr. Frear. They have railroads across Long Island to this point?

Col. Newcomer. Oh, yes.

Mr. Frear. What water transportation do they require under present conditions, when they wanted to use that for seagoing vessels?

Col. Newcomer. Like all industries around New York Harbor, they want to get water access for their products.

Mr. Frear. What products do they have there?

Col. Newcomer. I do not know now just what industries are involved there.

Mr. Kennedy. It says here it principally consists of garbage, refuse, road materials, etc.

Mr. Frear. It is practically a dumping ground.

Col. Newcomer. Barren Island is one of the places where they have a refuse-disposal plant; that is just inside of the entrance. Of course that whole territory has developed rapidly. It is really an extension of Brooklyn, you know, and it is building up, and the traffic is in building materials and things of that kind. They also have an industry in there for which the city built one subsidiary channel, and what we propose now is to reduce the depth of this project from a 30-foot to substantially an 18-foot project.

Mr. Frear. Are the engineers taking this upon themselves to make this modification, or has anything been presented to the committee?

Col. Newcomer. A recommendation has been made to Congress. published in House Document 554, Sixty-fourth Congress, first session, and also noted here in the annual report on page 553.

Mr. Frear. That becomes a new project?

Col. Newcomer. Yes; proposes one.

The Chairman. They were required to ask authority of Congress before the balance of this appropriation of \$500,000 could be used.

Col. Newcomer. Yes, sir.
The Chairman. I might say, in justice to our former colleague, Mr. Hulbert, that he has recently stated the mayor elect there and the city administration are in favor of the city doing its part in the further prosecution of this improvement.

Mr. Kennedy. Is there any burden put on the city under the rec-

ommendations by the modified project?

Col. Newcomer. In the modified project?

Mr. Kennedy. Yes.

Col. Newcomer. Yes, sir. It is proposed that the work proceed on modified lines under certain conditions of local cooperation which will limit the work done by the United States step by step with what the city does.

The CHAIRMAN. The new recommendation provides for local con-

tribution to the extent of half the cost.

Did you make any comment on Mattituck Harbor?

Col. Newcomer. Yes; I explained that.

The CHAIRMAN. We come now to the third New York district. The only item in that district for which an estimate is made is the Shrewsbury River, New Jersey, \$10,000.

Col. NEWCOMER. That is required for maintenance. It is a channel which shoals annually and of course has to be redredged annually and is one that has an important commerce also—a very large pas-

senger traffic in addition to a substantial tonnage.

The CHAIRMAN. Philadelphia district. The first item there, for which an estimate is made, is Delaware River, from Laylor Street. Trenton, to the upper railroad bridge, \$55,000, for further improve-

ment.

Col. Newcomer. That is to complete the improvement which was authorized several years ago and has been in progress under considerable difficulties, because ledge rock in considerable quantities has been encountered which was not disclosed by the original survey; and that has increased the cost of the work. This is an increased cost entirely above the original estimate, and in addition to this we made an allotment last year, in order to keep this work going, out of the lump sum appropriation of March 4, 1915. And we still, in addition to that, will need this \$55,000 in order to complete. I might state

in that connection that the city of Trenton has spent a large sum of money to prepare a terminal to which this channel gives the approach.

The CHAIRMAN. And there has also been a considerable industrial

development on the water front, has there not?

Col. Newcomer. Yes; the building of boat yards by the American

Bridge Co., and, I think, the Standard Oil, is also concerned.

The Charman. The mayor of Trenton, Mr. Donnelly, has been quite active in advocating the improvement of that river, particularly the part opposite Trenton, and has been very anxious to see this completed. Do you think this \$55,000 will complete the improvement?

Col. Newcomer. That is the estimate that the district engineer now makes and the best information we have on the subject is that

it. will.

The CHAIRMAN. Personally I think that is a work that should be completed as early as possible so as to give access to the terminal and wharves there. My information is they need it very much.

Col. Newcomer. They are very anxious to have that available at

the opening of navigation in the spring.

The CHAIRMAN. The next item is Delaware River, Pa., N. J., and Del., from Philadelphia to the sea, \$450,000 for maintenance and

\$650,000 for further improvement.

Col. Newcomer. That is the big 35-foot project for Philadelphia harbor, and the funds asked for is the amount that we consider it practical to use to advantage during the time preceding the next appropriation. The work is of great importance. You will notice in the maintenance charge here, of \$450,000, that the cost of maintenance itself is quite heavy. We have several Government dredges there continually employed in maintenance work.

Mr. Kennedy. How long do you figure it will take you to complete

that project?

Col. Newcomer. The district engineer submitted quite an elaborate report upon the proposition this last summer, indicating that the work can probably be completed within the estimated cost. You see there is about \$2,600,000 remaining. We are asking now for \$650,000 out of that, and we can ordinarily spend in the neighborhood of a million a year, so that in the course of three or four years we ought to be able to complete the original or new work on that project. We find it is going to involve some dike construction, however, that was not originally anticipated; in order to reduce the maintenance we must narrow the channel at some places by building dikes.

Mr. Frear. What was the estimated maintenance charge?

Col. Newcomer. Three hundred and fifty thousand dollars was originally estimated for maintenance. We are now running somewhat beyond that; and we do not yet have the 35-foot channel complete.

The CHAIRMAN. Is this appropriation sufficient to maintain the organization of the Government fleet of dredges so that there will be no loss resulting by reason of idleness for the ensuing year?

be no loss resulting by reason of idleness for the ensuing year?
Col. Newcomer. Yes, sir; this will provide for the operation of

that plant.

Mr. Frear. Another question right in that connection: What is the comparative cost to the Government of the work being done by the Government dredges and by private contractors—I mean gen-

erally speaking? As I remember it, it is hard to determine anything from the Government statement as to what the cost is with our own machinery. Of course we know what the contract price is with various companies.

Col. Newcomer. That is all given in the annual report.

Mr. Frear. That is given?

Col. Newcomer. The cost of operation of the Government dredges and of course the contract prices is all given in the annual report.

Mr. FREAR. Does that include overhead charges and everything,

figured in?

Col. Newcomer. Yes, we give that, including all. The last thing in this three volume report is a report of plant operation and you will find it in there, for every dredge, a full statement of its operations. In this case, for the year 1916.

Mr. Frear. Does it state where it is working?

Col. Newcomer. It states where the dredge is working and gives full details as to the amount of materials removed and the cost, the overhead charges and all.

Mr. Frear. That has reference—that amendment that was put in—to the additional increase charged private companies over the

Government?

Col. Newcomer. Yes, sir.

Mr. Frear. That is the reason I asked the question.

The CHAIRMAN. As I understand it, Colonel, whatever difference of cost there may be between dredging by the Government plant and by private contract varies on the different improvements and in different licalities?

Col. Newcomer. Oh, very largely.

The CHAIRMAN. Dependent on local conditions?

Col. Newcomer. Yes.

Mr. Switzer. What it cost two or three years ago does not have much bearing on what it would cost now, anyway.

Col. Newcomer. No.

The CHAIRMAN. And there are other conditions. So that it is quite difficult to arrive at any generalization as to the advantage or disadvantage, as to the cost, of the Government plants and pri-

vate contracts generally.

Col. Newcomer. Of course you have to consider where this is being done, and it is frequently the case that the Government plant and the other plant may not be engaged on work of the same quality; and there is a variance in material and in difficulty of excavation. In this case, for instance, the Government plant is engaged on maintenance work simply, taking up the material deposited in the channel once excavated. The other work is for the original excavation. Just what difference that would make in this instance, I could not say offhand.

Mr. SWITZER. And on the first excavation, you may have to take

out some rock?

Col. Newcomer. No, sir, no rock. We have one big rock excavation contract in Philadelphia Harbor, but that is handled separately.

Mr. OSBORNE. I notice the commerce is very heavy, twenty-eight or twenty-nine million tons, of a billion and a half dollars in value, and 250,000,000 passengers—evidently a very important highway.

Does this estimate, and so on, take into account the large increase of cost of doing all excavating, and all work of that kind, over what it

was a year or two ago?

Col. Newcomer. We have attempted to take that into account. Of course we can not tell whether we have made adequate provision or not for those increases, but I think this will probably cover it, because that is for the maintenance of the Government plant and we can better estimate there what it will cost, than we can, of course, when doing the work by contract.

Mr. Frear. Right in line with what I asked before: On page 4598 appears an item for one of the dredges in the Delaware River, and in that way, I suppose, a comparison can be made. It states

the 22-cent average is what it cost by the companies.

Col. Newcomer. What page is that?

Mr. Frear. Page 4598. Now where would we find the remaining dredges working upon the Delaware River, if we wanted to make comparisons? I do not know that it is important. These are given by names, and of course we have no knowledge where the different dredges are working and where can we find the different localities in

which they are working?

Col. Newcomer. If you will look, Mr. Frear, on page 3847, there is a table about plants, a list of floating plants by districts. Then, if you will look for Philadelphia under that, you will find what plant there is in Philadelphia; then getting the names, you can go to the other table and get the operations. And then, in the district engineer's report, which is in the second volume, you will get a statement of all contract operations in force.

Mr. Frear. I know as to that. Those names are given here?

Col. Newcomer. Yes.

The CHAIRMAN. Speaking of the Delaware River, there has been some difference of opinion in the past, not among the engineers that I know of, but in the public discussion, as to whether the cost for maintenance of that 35-foot channel would not be excessive; and the item of \$450,000 for maintenance during the ensuing year indicates that it is expensive. Are there any plans which have been matured, which it is believed will reduce that cost of maintenance when the

channel is completed?

Col. Newcomer. Yes, sir. I just referred to a study that was made by the district engineer, indicating that by confining the channel within proper limits, varying in width of course as you go up the stream and depending upon the tidal flow, we can materially reduce the expense of dredging, for maintenance, by the construction of dikes. The expense otherwise would be very heavy, but would probably be justified even then, because the commerce is extremely important. But we believe we can bring that maintenance down within quite moderate limits by proper dike construction and a general regulation.

The CHAIRMAN. There has been some question—

Col. Newcomer. It was not expected originally we would have to go into that so extensively. The original project provided for the construction of only a few dilec-

construction of only a few dikes.

The CHAIRMAN. One or more members of the committee have had some doubt about the question of maintenance, and I desire to have your opinion.

Mr. Frear. I do not know that I have ever expressed myself. The Chairman. It was not with reference to you. The members

who spoke about the matter are not here to-day.

Mr. Frear. I will say this: In the past I have had some correspondence with engineers who are very familiar with this matter, and very competent engineers, and the complaint that they made at that time was that we were employing suction dredges, and only increasing the depth of the channel, as I remember it, about one-tenth of a foot a year, and they made the charge that it was not a profitable way of handling the dredging. That is something that has come to mind, but something I never referred to here because I did not know. We do use suction dredges there?

Col. Newcomer. Oh, yes, indeed.

Mr. Frear. And it is pumped right back near the channel, isn't it, so that it is liable to drift back? That is the criticism made there by

this engineer I speak of.

Col. Newcomer. The material is put behind confining or retaining walls, or bulkheads, most of it. They have, however, to a certain extent, simply pumped overboard. That has been when there has been an ebb flow of the tide, the idea being that most of that would be carried outside of the channel; but some of it would go in the channel still. We are able to handle it very cheaply in that way, and the resulting increase in depth appears to have justified that method of operation.

There are only a few cases of that kind that I know of similar to the method employed on the Delaware, of the operation of suction dredges discharging overboard during tidal stages. But the results

have justified that method of operation.

The CHAIRMAN. The next item for which an estimate is made is

Schuylkill River in Pennsylvania, \$300,000.

Col. Newcomer. This is for continuing the 30-foot project in Schuylkill River which was adopted at the last session. It is expected that the funds on hand will provide somewhat less than the project depth up to the oil docks, which are some little distance up the river—will perhaps give the 30-foot depth as far as the navy yard, and then a 27-foot depth from there on up the stream for several miles. Of course we are going to provide the 30-foot depth as far as we can, and that \$300,000 additional was asked to continue that work at the same rate we originally estimated for.

Mr. Frear. This is subject to the same suggestion I made a while ago, of \$300,000 on hand, and \$300,000 more asked for continuing

the work, and no work has been done or contract made?

Col. Newcomer. Those figures relate to the beginning of the fiscal year, but as a matter of fact work has not yet been begun. The specifications have been drawn up, but there has been a little difficulty there about getting the city to accept the condition upon which the project was adopted, that pending the completion of certain sewage disposal works the city and the State should bear the expenses of maintenance. The funds should apparently be applied now in providing a channel of somewhat less than the full project depth and they seem to be shying at the maintenance of anything except the full project depth channel. But we take the ground, and I think properly, that any channel should be maintained there at the city's expense, pending the completion of the sewage disposal work,

but we have not yet had them accept that point of view. I think they will do that and the work can proceed very soon. We consider that is emergency work.

The CHAIRMAN. That is at Philadelphia Navy Yard.

Col. Newcomer. In fact, we asked the Contractors' Emergency Dredging Committee to assist us upon that work.

Mr. Osborne. This \$300,000 on hand, and the second \$300,000

would have to run you until June 30, 1919.

ber

me-

tter.

ea:

. in-

int.

ab)r

6.

30

1 i.

ing

ęχ.

eet.

ar

ne.

the

 $0^{4}$ 

i to

161

ill:

th:

III

ITT

61.-

28

116

ile

ηg

al

he

fi-

ch

in

χ-

H

ct

۲,

I

Col. Newcomer. Yes; or March 4, 1919. At least, we expect the appropriation under the new bill would be available by March 4, 1919.

The CHAIRMAN. The next is the short session, you know.

Mr. Kennedy. The fund becomes available when the bill becomes

The CHAIRMAN. We will now take up the Wilmington, Del., district. The first item for which an estimate is made is Absecon Inlet, N. J., for maintenance, \$20,000.

Mr. KETTNER. Mr. Chairman, I hope Col. Newcomer will explain that item. I was in Atlantic City last year, and I hope he will give

a full explanation of why that work should be carried on.

Mr. Kennedy. I was just wondering on what basis the engineer made that recommendation. You know we agreed to take that on for five years, with certain conditions attached. I do not know whether it was in view of the fact we made that statement, or whether it was on account of the commerce accommodated that the recommendation was made.

Col. Newcomer. Primarily on account of the project adopted by Congress to open up this channel and maintain it for five years, with a view to determining later whether the work should then proceed. The commerce, as a matter of fact, has not been extensive, but there has been an added value during the war, or since we went into the war, on account of the use of this as a station for patrol boats. There are a great many, of course, as you know, in use along the coast, and I understand this Absecon Inlet furnishes one of their harbors where they can get supplies, and it is sort of a home port, or port of refuge. The estimate of \$20,000 is simply based upon what we have on hand and the amount required to operate that dredge until the next appropriation becomes available.

Mr. Kennedy. I notice in the engineers' report here, which gives the number of vessels, draft, etc., "5 to 7 feet and 5 to 8 feet." Of course they had plenty of water for vessels of that kind before they

did any work at all there.

Col. Newcomer. No, sir.

Mr. Kennedy. I think the report on which we based our action says that the survey showed about 9 feet, 8 or 9 feet. Now, as a matter of fact, when we adopted that project, the people of Atlantic City were over here and they agreed to put on a boat line and maintain it. They were so anxious about it that they offered to contribute some funds to carry on the work up there when the Government dredge was built. Now, as a matter of fact, there has not been any boat line on there since 1915. I was there for a month last spring, and I went down to the dredging boat and those fishing boats, and put in about half of my time along there trying to find

somebody who could see some benefit from the operation of that dredge, and I could not find anyone. They did not know who I was and I did not tell them who I was, but it looks to me like throwing away money.

Col. Newcomer. I did not understand there had been an entire absence of steamboat traffic, but the line originally started has since

stopped operation.

Mr. Kennedy. There are only little fishing fleets, which only

need 6 or 7 feet of water.

Col. Newcomer. The statement here is that "the usual draft of loaded boats is 12 to 16 feet. The general character of the commerce for the current year was fish, oysters, clams, chemicals, horses, wagons, coal, machinery, farm produce, and general merchandise." I know we had quite a point about the value of the commerce, that came up last year.

Mr. Kennedy. There is a statement here which shows the vessels

sailing, headed "Absecon Inlet, N. J."

Col. Newcomer. That is in the second volume.

Mr. Kennedy. In the second volume.

Col. Newcomer. What page?

Mr. Kennedy. Page 2178. It gives the draft 5 to 7 feet and 5 to

Mr. KETTNER. Mr. Chairman, right there I wish to corroborate Mr. Kennedy's statement as stated. I was over to Atlantic City last year and met Mr. Kennedy while there, and I also investigated that project. I was informed that there had not been a boat running to New York for (I believe they said) a year at that time.

Mr. Kennedy. You notice according to that table there they have

given a good deal of data with regard to boats.

Col. Newcomer. If you will notice on page 2179 the statement is made that "a new line to these points is now being formed and is

scheduled to operate in the fall of 1917."

Mr. Kennedy. As a matter of fact, they told me the line had not been operated. Of course there was a great demand for vessels when the shipping conditions became acute, and I was informed that they took them off because it did not pay them while they were operating. If that is true, with the conditions at the present time, I assume they are not going to put on another boat line.

Col. Newcomer. It is quite possible.

Mr. Kennedy. You could find out for us, could you not?

Col. NEWCOMER. I could find out whether or not they put on this line, which they expected to do.

Mr. Frear. On page 2178 the draft of the largest boats is given

as 5 feet 8 inches. Now, this project is completed—Col. Newcomer. As I understand, it is 5 to 8 feet.

Mr. Frear. Yes, 5 to 8 feet. The project is completed to 12 feet, and there is no large boat; and I can corroborate what these gentlemen have said, because I was at Atlantic City last year, and no steamboat goes in and out outside of that dredge, and there is nothing there in the shape of commerce except little fishing boats.

Mr. Kennedy. The \$45,000 in the report was the amount estimated

for by the engineers each year, was it not?

Col. Newcomer. That was the original estimated cost of operating the dredge.

Mr. Kennedy. It says here this regular line was withdrawn in 1915.

Col. Newcomer. Yes. I do not think that the commercial value

of this project has been demonstrated by any means.

Mr. Kennedy. Oh, no. If they should want to put on another line and show their good faith, why you could put the dredge in commission there again, but it looks to me like it just fills up there and they are just going back and forth and it is not doing a particle of good.

Col. Newcomer. As a matter of fact the channel maintains itself fairly well, but it tends to shift its position and more or less work

has to be done in that way.

Mr. Kennedy. The only thing they have there are the fishing boats and sail boats which take the passengers out. I was up there

for 30 days.

Mr. FREAR. By the way, Colonel, would it not be more important for the Government, at this stage, to use that great dredge at New York Harbor, or some of these important harbors, than down there at Absecon Inlet?

Col. Newcomer. The dredge has been used to a certain extent at other places.

Mr. Frear. I would suggest that we let this project go for the

time being and use that dredge where it is more important.

Col. Newcomer. We would not hesitate to transfer it if the need were sufficiently great. But the dredge is not a very good dredge for deep channels, because it is of very light capacity. It is an especially designed dredge to operate in shoal water, and they only have a limited capacity, and it is not an economical dredge to operate in seagoing channels, such as in New York Harbor. There might be some places such as those where we have in the past utilized this dredge.

Mr. Frear. I talked with some of those people with regard to that dredge and it was a matter of amusement there because it was the only boat that goes in and out of that harbor. It goes away out in the ocean several miles to drop this dredged soil and is a joke and it is rather embarrassing to have an item of that kind in the

bill, because we can not justify it.

Col. Newcomer. It is a matter for Congress to determine. We are proceeding on the basis that the experiment is to run for five years.

Mr. Kennedy. I was just looking up the bill in which we adopted that project. I thought it incorporated that language in the item—that is, to try it for five years—but it seems like we are under no compulsion to continue it for five years, in view of the fact that the people of Atlantic City have absolutely failed to carry out their part of the agreement.

Mr. Frear. They refused to put up the \$45,000, too, which was one

of the inducements.

Col. Newcomer. I will make inquiry about the boat line to see whether that has been established.

Mr. OSBORNE. To what extent, Colonel, is the Navy using it for the

purpose you stated, as a refuge for patrol boats?

Col. Newcomer. I could not speak in detail about that. I simply understood this was of advantage to them. I heard some remarks made by some one in the Department that the patrol boats could

make use of it. There is a very long extent of coast there. There is Cold Spring Inlet somewhat farther down, and with a somewhat deeper entrance, which is used by them extensively now. But this is farther North and a place where they can take refuge.

Mr. Frear. Do you believe to cease this work would embarrass

them in any way?

Col. Newcomer. I would have to speak with them to be certain about it.

Mr. Frear. Will you do so?

Col. Newcomer. I will make that a part of the inquiry.

The CHAIRMAN. Are there any further questions about Absecon Inlet.

Col. Newcomer. I might state, before you leave that, that the new work was completed there practically in 1915; so that the period of five years, if it is observed, would extend to about 1920.

(The following report was received from the district engineer

officer in response to inquiry made by Col. Newcomer:)

Office District Engineer, Wilmington, Del., January 21, 1918.

The CHIEF OF ENGINEERS, UNITED STATES ARMY,

Washington, D. C.:

1. Returned.

2. The steamship line between Atlantic City, N. J., and New York, N. Y., and Philadelphia, Pa., has not been reestablished, as a boat could not be secured. There is a company incorporated which will operate a line when war conditions permit.

The discrepancy in statements of draft is due to the fact that the regular commerce carriers given in the Chief of Engineers' report are of light draft, but the pleasure yachts, menhaden and mackerel fishermen, which use the inlet in large numbers, are of the deep drafts stated.

3. Inquiry of the commandant, fourth naval district, as to the use of the inlet

by patrol boats produced the following information:

(a) No use has been made of Absecon Inlet by district patrol boats up to the present time. In the early part of the year Atlantic City was visited by patrol boats for recruiting purposes. No boats have been based on Atlantic City.
(b) It is thought, however, if practicable to use this inlet after the submarine

(b) It is thought, however, if practicable to use this inlet after the submarine chasers become available for district service, and that use may be made of the facilities existing at Atlantic City for patrol boats, for stress of weather, repairs, and supplies.

FRANK C. WARNER, District Engineer.

The CHAIRMAN. The next item for which an estimate is made is

Wilmington Harbor, Delaware, \$30,000 for maintenance.

Col. Newcomer. That estimate is one that was reduced from an estimate of \$70,000 submitted by the district engineer. In all of these cases where reductions were made in the office of the Chief of Engineers, the district engineer was notified and asked to submit his views in case he thought the reduction was too radical or too heavy, and in this case the district engineer has requested that this amount be increased. He has asked to have it increased to \$60,000. His attention was drawn to the fact that we needed to provide for it only until March, 1919, and he then made a request for \$50,000. It appears the local interests have contributed somewhat to the cost of the work there. On page 409 of the annual report you will find a table giving the expenditures in recent years. The expenditure in 1917 amounted to about \$41,000, and as they had \$50,000 on hand it was thought an additional appropriation of \$30,000, giving \$80,000 altogether, would suffice. But it appears that \$10,000 additional

was expended in 1917, contributed by local interests, so that apparently the annual cost amounted to \$50,000 and that amount should be provided for next year.

Mr. Kettner. You think this should be increased, then, to \$50,000?

Col. Newcomer. It should be increased to \$50,000.

The CHAIRMAN. The colonel recommends that this estimate of \$30,000 should be increased to \$50,000. We will take that matter up when we come to a consideration of the bill in committee.

Mr. Frear. You spoke about a contribution by local interests. Does that have reference to the act which required the city of

Wilmington to make a contribution?

Col. Newcomer. There was no act requiring a contribution by the city of Wilmington, but the city voluntarily obtained authority to contribute up to about 10 per cent, and they have now contributed about \$42,000, which comes pretty close to the amount they were expected to contribute.

Mr. Frear. \$60,000 is the amount here, and I called attention once or twice to the fact that they made no contribution for a number of years. They have given something in the last year, have they not? Col. Newcomer. Yes.

Mr. Frear. Because I remember you spoke of that at that time, and this project was approved with the expectation they would make that contribution. At least, I so understood.

Col. Newcomer. It is my impression they undertook that after

the project was originally adopted.

Mr. Frear. After the project was adopted?

Col. Newcomer. I think so.

Mr. Frear. But they are making a contribution at this time and showing a right disposition.

Col. Newcomer. Yes.

The CHAIRMAN. It was not a condition imposed by Congress but a voluntary contribution undertaken by them. But after they had undertaken it, Mr. Frear is right that we are insisting they should live up to it.

Mr. Frear. Otherwise it is of no avail placing that in the bill that they are expected to make a contribution. I understand from you

they are contributing.

Col. Newcomer. Yes. There were some figures given by the district engineer, but it was not observed when the annual report was printed that it did not include a money statement showing the local conditions. We should have had a money statement for the contributed funds as well as the United States funds. So that it does not appear just what was done.

The Chairman. The next item is for a waterway on the coast of Virginia, maintenance, \$1,000. Will you explain what that water-

way is and what is the purpose of the estimate?

Col. Newcomer. That is a waterway leading South from Chincoteague Inlet, and it is a waterway that is subject to shoaling to a certain extent. We find that the available balance of \$1,400 or \$1,500 is not sufficient to restore the project depth. There is a considerable movement of small craft in that waterway, which fully justifies the small amount to restore the project depth, and \$1,000 was estimated for that.

The CHAIRMAN. I notice quite a considerable commerce there in that location, 123,000 tons.

Col. Newcomer. Yes, sir.
The Chairman. That is largely oyster boats passing through.

Col. Newcomer. Yes, sir, and fishing craft.

The CHAIRMAN: Yes, I looked that up.

The next is the inland waterway from Delaware River to Chesapeake Bay. Can you inform the committee as to the status of the negotiation for the purchase or, in default of purchase, for the con-

demnation of that propertly, as authorized in the last act?

Col. Newcomer. Yes. The district engineer took the matter up with the manager or president of the private corporation which now controls that waterway and tried to get a price from them at which they would be willing to sell to the Government and they refused to name a price. They said if the Government wanted to purchase it was up to the Government to make an offer, and as that offer should be made, with the approval of the department, the district engineer made a report which we propose to send to the Secretary of War for his action, making an offer on the part of the Govern-Of course, what action they will take upon receiving that we can not tell. The act provides if there is a failure to make an amicable agreement and to come to terms, condemnation proceedings will be instituted.

Mr. Frear. They never have given any figures?

Col. Newcomer. No.

Mr. Frear. Of course, when one expects to sell a property that has been unremunerative, I understand they do pay 4 per cent on the bonds?

Col. Newcomer. On the bonds, yes.

Mr. Frear. When a man expects to sell a horse or a house he fixes a price on that. Is that a fair way of dealing with the Government,

to expect the Government to make a bid?

Col. Newcomer. It did not seem to me so. At the same time, they take that view, and we have to meet it the best way we can. I made the statement that they never have indicated a price. I think, however, as a matter of fact, they have on several occasions indicated what they thought would be a fair price, but it was so far beyond what the Government would consider a reasonable price that the Government never attached any weight to it.

Mr. Frear. About what was it?

Mr. Kennedy. \$3,700,000.

Mr. Frear. When this item went through the House the first time it was for \$1,300,000. That was increased in the Senate, I remember, to \$2,500,000.

Col. Newcomer. Yes. Those amounts were arrived at in some way in committee, I do not know how. The value made by the board that was asked to pass on the matter was something like two and a half million.

Mr. Kennedy. I happened to be a member of the subcommittee of this committee when it agreed on that \$1,300,000. We arrived at that by figuring that the bonds of \$2,600,000, drawing 4 per cent, were outstanding, and they only made about one-tenth of 1 per cent above the interest charge on the bonds. We figured with a propcrty of that kind that the bonds ought to be figured like any common stock. There was no margin at all to go on outside of the 4 per cent, and we figured their value to be about \$1,300,000.

Col. Newcomer. In other words, you figured on an 8 per cent basis

instead of 4 per cent.

Mr. Kennedy. There was absolutely no margin whatever. Here is a railroad stock, for instance, paying a 6 per cent dividend, that earns twice the dividend on the common stock, for instance, and when it gets down so that they only earn just the amount of the dividend on the common stock, you will notice the price at which it sells means a return of about 8 per cent.

Col. Newcomer. Of course an assured return of 4 per cent there

would hold the bonds practically at par, I should judge.

Mr. Kennedy. No; they have no surplus money; no margin above the 4 per cent that they pay on the bonds.

Col. Newcomer. No; but that seems to be a fairly well assured 4

Mr. Frear. There is another element that enters into that—they Were not keeping up the plant.

Mr. Kennedy. No; they were not putting anything into it.

Col. Newcomer. I was interested to know that.

The CHAIRMAN. Mr. Kennedy, simply to have the record complete from both standpoints, the engineers in their reports, both the chairman of the Angus Commission and the latter report, estimated the value of this property to the United States at \$2,514,289.70. That was its appraised value to the United States for the purpose of acquirement and improvement into an adequate waterway.

Mr. Kennedy. That was on the basis of reproduction that they

figured.

The CHAIRMAN. Now, the item in the bill which was carried, as reported by this House, with due respect to those who made the calculation, to my mind was an arbitrary fixing of the amount; and a member of the committee at that time, but not now a member, who was very active in arriving at that, impressed me with being more anxious to fix upon some sum that would not accomplish anything than to get legislation which would be effectual—which I do not think is fair legislation. I am not questioning your motives in the matter, but the motives of another member.

Mr. Frear. You say he is not now a member. The CHAIRMAN. He is not now a member. Mr. Frear. That absolves all of us, I presume.

The CHAIRMAN. Yes; it absolves all of you. It always appeared to me that the basis upon which the engineers proceeded was the correct basis; that is, if you are going to purchase a thing, what is its value to the purchaser? Now the engineers have uniformly recommended as the best route for this waterway the one occupied by the existing Chesapeake & Delaware Canal, thus making it necessary to acquire that property if we were going to adopt the project for a waterway connecting Chesapeake Bay and the Delaware River. So that in any authorization it ought to have been an amount which was fair to the United States to authorize to be paid for its purchase.

Now, in the last act, as all members of the committee know, we authorized the Secretary of War to purchase, if he could purchase at a fair value; otherwise to condemn. So far as the attitude of

this canal company is concerned (and I only know of it from the records; I do not happen to know personally any of them), their attitude seems to have been difficult to understand—difficult certainly from the standpoint of the Government and difficult to understand from their viewpoint. Apparently they have not been anxious to sell and no progress has been made in negotiations by reason of their indifferent, obstructive course, with reference to the acquirement of this property. And I assume if the Government acquires it it will have to be done by condemnation. I do not want to say anything about the value of the improvement to the United States, because that is not pertinent at this time; that has been passed upon; but individually I do hope that some report will be made, either of purchase or condemnation, which will get the approval of Congress, so that this project can be gotten behind us.

Mr. Frear. May I ask a question in connection with what the chairman has just said? Colonel, in your judgment, how long will it be before this canal can be of any value to the Government for naval purposes under present business conditions, providing the canal should be condemned at once? How long would it take to im-

prove it so that we could use it for the benefit of the Navy?

Col. Newcomer. Of course, before you could provide any substantial additional facilities, it would probably take two or three years. The canal of course is open now to navigation and will accommodate traffic to a considerable extent. It is useful at once within the limits of the size of the locks and the draft of the canal. I do not understand that it is particularly important for the Navy. In other words, it is too shallow, even with the proposed increase in depth to 12 feet—it is too shallow for the movement of submarines or torpedo boats and things of that kind. The naval interest in it would simply be like the ordinary commercial interests, for the movement of supplies.

Mr. Frear. Then what is the apparent necessity at this time of pushing this project as a war measure. Is there any in your judg-

ment ?

Col. Newcomer. I did not understand that this was especially a war measure. It is a measure that has been considered urgent, commercially, now for a good many years, to release the traffic there now is on this waterway from the present burden of tolls, and also to make it more effective, because it is now hampered by the present inadequate lack of facilities and the small size of the locks.

Mr. Frear. Of course at this time we are trying to hold down the bill and, I think, the chairman is doing so, to as moderate a figure as

possible.

Col. Newcomer. You understand there is nothing in the bill for it. Mr. Frear. I understand, but there may be expenditures in the future.

Col. Newcomer. As I understand, that will come before Congress when the report is made on the agreed price or the price by condemnation, and then it will be for Congress to determine whether the time is ripe for purchasing the canal under those conditions.

The CHAIRMAN. So far as can be foreseen, it will not be received in time, for either the House or Senate, to consider its acquisition, by

purchase or condemnation, during this session.

Col. Newcomer. It is not anticipated.

The Chairman. I will say, Mr. Frear, in answer to your suggestion, that there was a report made by the Army board of the military advantages, and Mr. McGann will get you a copy of it at any time. They consider the military and strategic advantage of it but state there must be a greater depth than 12 feet. So, as Col. Newcomer stated, its military value depends upon a larger depth than the project of 12 feet now recommended. And it was stated, and it seems to me conceded in all the reports, that 12 feet would answer, not completely but in a modified way, the demands of commerce, and would develop a very large commerce. The locks there at the present time are only 24 feet wide and barges have to be constructed to fit them. You will probably notice that he barges using the canal are very long and very narrow, the reason being that they had to be constructed to meet the size of the locks.

Mr. Frear. I will add to what the chairman says that as I now, remember the report it was suggested the canal could be utilized for the movement of troops at the rate of 4 miles an hour through the

The Chairman. You must remember that is much faster than some troops are being moved now by rail. Is there any further in-

quiry along this line?

If not, we now come to the Baltimore district. The first item there for which an estimate is made is Baltimore Harbor and channels, \$100,000 for maintenance, and \$200,000 for further improvement. Colonel, will you kindly state how it is proposed to expend the

appropriation for maintenance and also for improvement.

Col. Newcomer. That is explained in some detail on page 437 of the annual report. The funds appropriated for the new project which was adopted in the last bill will provide for a new channel, a 35-foot channel, in the Curtis Bay section of the harbor and for a partial provision of the 35-foot channel in the southwest Baltimore Harbor section. The additional fund of \$200,000 for further improvement is desired to continue the work on that channel in the southwest Baltimore Harbor and the \$100,000 for maintenance is simply required to remove the shoaling that has taken place in the channels, in order to maintain the project depths that have been provided hitherto.

The CHAIRMAN. There was a consolidation in the last bill of the work in the vicinity of Baltimore Harbor, which included Curtis Bay. What work has been done on the Curtis Bay project, or what is proposed to be done in the immediate future out of this appro-

priation?

Col. Newcomer. It is expected they will get the 35 feet at these important coal piers in the Curtis Bay section with the funds on hand and begin work on the channel in southwest Baltimore Harbor. That provides an approach to the Pennsylvania's new big piers. They have to do considerable work on the side channel in order to reach the main channel.

The CHAIRMAN. This is an important harbor, and the question will be asked as to whether these two estimates for maintenance and further improvement constitute all that can be provided and will

be necessary to expend during the ensuing year.

Col. Newcomer. Yes, sir. That is based on the idea of what can be advantageously expended in the next year.

Mr. Frear. Who owns the Curtis Bay wharves at that point,

Colonel? They are not public wharves?

Col. Newcomer. The Baltimore & Ohio Railroad Co. is the principal owner. Of course there are other industries on Curtis Bay, but the railroad coal terminal is the most important.

Mr. Frear. They are entirely owned, or controlled, by this rail-

road company.

Col. Newcomer. Yes, sir.

Mr. Frear. There are no public wharves whatever.

Col. Newcomer. I do not think there are.

Mr. Frear. As I understand the recommendation of the Assistant Secretary of the Navy on that Curtis Bay project, it was desired to help secure oil from the Standard Oil people and others for use on the vessels?

Col. Newcomer. I think, Mr. Frear, it was required for those col-

liers to come to the coal docks.

Mr. Frear. What protection have we, in a case like that, where there are no public wharves in a case of that kind, but when they belong entirely to a private company, and we dredge up to their wharves at an expense of several hundred thousand dollars, or more, and then are we not subject to all the regulations that they make for their wharves? I mean, ordinarily we make a different condition; that is, we say you must put in public terminals like at Philadelphia and New Orleans, public wharves. Now, here we are dredging right up to the railroad wharves with no condition imposed.

Col. Newcomer. That is a very common condition all over the country, that the wharves are in private hands. There are only a few of our harbors where the wharves are publicly controlled. Of course there is a public control that can come from the State commissioners and from the Interstate Commerce Commission. For instance, the Interstate Commerce Commission has thorough control over those terminal facilities of the railroad, so that you are not without defense against any unfair action of the railroad corpora-

tions.

Mr. Frear. What city is it that has no municipal wharf, either at the present time or projected, unless at Portland; and I think they have arranged for that there.

Col. Newcomer. Take Boston, for instance: I do not know whether

they have at Boston, or not, but Portland has no municipal piers.

Mr. Frear. I am speaking about Portland—Col. Newcomer. You mean Portland, Maine?

Mr. Frear. Yes.

Mr. KETTNER. I believe Boston is building public wharves at the present time.

Col. Newcomer. That may be. New York, of course, has public

facilities.

Mr. Frear. It is good policy to endeavor to require the munici-

pality to have public piers?

Col. Newcomer. Yes, and it is very desirable. Take in the case of Baltimore Harbor: I do not know to what extent they have any municipal piers, but the inner harbor has been improved entirely at local expense. They provided a 35-foot depth there, but I am not certain to what extent they own any piers.

The CHAIRMAN. As to Baltimore Harbor proper, the city of Baltimore has constructed very extensive and adequate terminals, and which are very satisfactory. If I personally should make any criticism, it would be as to the use they are making of those terminals. My last information was to the effect that instead of reserving some one or more of them for public or general use, that they had all been leased to the water transportation companies. I hope I am in error as to all having been leased, but I know that was stated. They have very fine terminals in Baltimore Harbor. I understand Mr. Frear's inquiry is directed to Curtis Bay, and I understand his statement to be correct as to Curtis Bay.

Mr. Frear. Right in line with what the chairman suggests as the governmental policy, ought not these municipalities be required to keep some of those wharves subject to public use. rather than lease them? Of course, in the city of New York, for instance, the great majority of the wharves there have been leased to private parties, but these municipal wharves ought to be open to public use.

Col. Newcomer. As I understand, there are some in this harbor

that are public, from what the chairman just stated.

Mr. Frear. Where is the power lodged now to require the municipality to keep some of them open; with the Board of Engineers?

Col. Newcomer. Oh, no, sir. As I understand, the only power that controls these terminals may be some local organization or Congress. Congress, of course, can affix any conditions it may de-

sire to attach to its appropriations.

Mr. Frear. The Engineers, for instance, report upon some project that on the completion of terminal facilities by the city, which are to be given to the public, and then they advise that the project be undertaken by the Government. Now, after we improve the project, the municipality proceeds to lease these wharves. Where is the power to compel them to keep them open to the public as was originally intended when the project was started? That was my thought.

anybody?

Mr. Frear. It is a question really suggested in line with what we have been talking about. Because I remember the Portland case, and I have raised the question once or twice of the importance of inserting a proviso, because the Engineers had agreed on the strength

Col. Newcomer. I am not certain that such power is vested in

of its being a public project.

Col. Newcomer. I do not think in the case of Portland Harbor, for instance, that they have made a condition that they shall construct any public piers. It is only that there shall be berthing space provided at some of the piers that will utilize the increased depth that is going to be given. And, as a matter of fact, it is going to be done by the Grand Trunk Railroad. Their piers are the ones that require it, and they are going to give the additional depth at the piers.

Mr. Frear. Are no piers contemplated to be built at Portland, Me.? Col. Newcomer. There are none building or contemplated that require this increased depth. They may have some piers there that are

now sufficiently accommodated by the present project.

Mr. Frear. I do not remember particularly, except Mr. Hinds made the statement in the House at that time that they were undertaking to put in public piers.

Col. Newcomer. I understand they have appointed a commission with a view to preparing plans for port development, but I do not understand they have formulated those plans yet. They have made no real, definite progress toward the construction of public piers.

Of course, I think it is well to bear in mind the fact that the Interstate Commerce Commission does have jurisdiction over this matter, so that any unreasonable practice or ruling made by a party controlling the terminal facilities of a railroad is subject to their supervision and control.

Mr. Frear. What purpose is there, then, Colonel, of the Government or Engineers insisting that municipal wharves and municipal terminals be provided as a condition for putting the project through?

Col. Newcomer. Because it is very desirable as a matter of public

policy to have those also.

Mr. Frear. That is, of course, the purpose we had in mind.

Col. Newcomer. Yes. The other, I think, is very desirable, as

you say.

The CHAIRMAN. I might supplement what has been said, by this statement. As to Portland, Me., there was in the recent past a movement to construct some municipal terminal there. What has been

done, I do not know.

Upon the general subject of terminals, in response to the inquiry of Mr. Frear, it is my understanding that, as water terminals, owned by the railroads, they are under the jurisdiction of the Interstate Commerce Commission; and as to the municipal terminals, or public terminals, not owned by any railroad, but owned and regulated by the municipality in the interest generally of water transportation, as well as rail transportation, and the coordination of the two, that there has not been assumed, so far, any Federal jurisdiction over them. As Col. Newcomer says, Congress, in making the appropriations has the power to impose any conditions which it sees fit as to terminals; but whether Congress should go further and assume some regulatory jurisdiction over municipally owned terminals, with a view of assuring that they shall continue to be used by the public and shall not be monopolized by any specific steamboat line or by any specific railroad company, but continued for the public use, is a very interesting question. I would suggest that the chairman will consider it and will ask other members of the committee to study that question and see if the formulation of some law by Congress is not advisable.

Mr. Frear. Otherwise, of course, as the chairman well suggests, if the Army engineers make the request or the requirement for the building of a municipal wharf, it might immediately be rented to a railroad company which had the exclusive frontage at Providence, or any of those places where we have insisted on this condition, and of course void just what the Army engineers desired to do—to give

this port to the public.

The Charman. Take the great port of New York, with its magnificent water frontage, piers, and terminals owned by the city; until recent years substantially all of them were leased either to private interests or to some common carrier, water or railroad. I understand now they are gradually getting away from that policy, and, as the leases expire they are reserving certain terminals to be placed

under municipal regulation and to be dedicated, more generally than they have in the past, to public use.

Col. Newcomer. While we are on that subject, it might be well to

state what took place in Charleston Harbor.

The CHAIRMAN. That is Charleston, S. C.? Col. Newcomer. Yes; Charleston, S. C. There an examination was made and an additional improvement recommended to deepen the project depth from 28 to 30 feet, coupled with a recommendation that the work should be conditioned upon improvement of the terminal facilities. The terminal facilities at the time the report was made, were of a quite inferior character, and it was thought that the Government was not justified in going ahead unless they did make more adequate provision for terminal facilities. It was then contemplated or expected that the municipality would take up that matter or handle it in some way. As a matter of fact, in the intervening years (the report was made about four years ago) the parties that were actually using the terminals there, the Southern Railway and other interests, have gone ahead and improved their terminals very materially, so that now they have first-class terminal facilities able to handle whatever traffic can come to the harbor, and the project was just adopted at the last session of Congress. Secretary has recognized that the terminal facilities there have been substantially improved so that the condition originally contemplated has already been complied with and they are going ahead with the

The CHAIRMAN. But they are not municipally owned? Col. Newcomer. They are not municipally owned.

Mr. Frear. Does not this situation arise, and very vitally now, because the Government is interested in all these projects: If the railroad, which owns the wharves, so decides, they can be monopolized to the exclusion of any other busines; they can be monopolized to the exclusion of any other boats?

Col. Newcomer. Yes.

Mr. Frear. The Government, then, is putting in this improvement for the benefit of the railway and not for the benefit of the general public, as originally contemplated.

Col. Newcomer. Of course, you realize that the railways serve the

general public.

work.

Mr. Frear. I understand that.

Col. Newcomer. Its traffic is not the only traffic that comes to the pier. There are a number of different terminals in Charleston Harbor. As a matter of fact, it might easily be that the best possible use that can be made of that pier is confining it to the use of the railway. That may fully utilize its capacity, just as in the case of the coal piers in Curtis Bay, for instance. They are built simply to handle coal brought in by that railroad, they can not handle anything else, and anybody who wants coal can come there and get it. And to make a provision that that pier should handle other goods, would obviously interfere with the handling of coal. So that quite possibly it may be perfectly proper and desirable to leave a pier in a private control because it is doing business which is serving the public.

Mr. Frear. That may be so from the standpoint of the engineers, but I do not believe the people generally believe that is the purpose in making these improvements, for the benefit of a railway company, notwithstanding they are incidentally serving the public. It seems to me it should be a permanent condition that the public shall have the right to the exclusive use of certain terminals and that was the purpose of the commissioner of commerce, who made a very extensive report on the subject some years ago. And it seems to me that was the purpose of the engineers, and therefore they began making requirements that public wharves be provided. Philadelphia and New Orleans and practically all of the large cities of the country have undertaken to do that, in line with that purpose, and not to have them owned by railroad companies for their exclusive use, but by the public at large, so that the public would have the right to use them under any circumstances and not be prevented by the railroad company.

Col. Newcomer. I understand the object to be to have not only one, but a number of wharves of that character, open for public and commercial purposes. But I do not think anybody would ever maintain that all commercial facilities, whatever their character, should be

open to the public use for all purposes.

Mr. Frear. Oh, no. That was not the suggestion. But they should have some positive rights, and they have none at Charleston, I understand, except such as are controlled by the railroads, and they have

none at Curtis Bay.

Col. Newcomer. You know the great point at these harbors that we wish to conserve is that all traffic shall have just and reasonable treatment in the use of the facilities, and that although the wharves are privately owned, the terms for their use shall be equal to all parties. In other words, any boat can go and get coal from that coal pier; and the same way with the railroad pier in Charleston.

Mr. FREAR. They can subject to the prior rights of the railroad

company.

Col. Newcomer. Subject to the prior right of the railroad company. It is only a question of service; in other words, of getting coal on equal terms.

Mr. FREAR. Every railroad company does business, for instance, with a particular line of boats, and these boats have the use of these piers because the railroads have the regulation in their own hands.

Col. Newcomer. I question very much whether that would be tol-

erated if they discriminate between particular boats.

The CHAIRMAN. Without intending in the least to minimize the importance of or lessen the attitude of the committee in insisting upon municipally owned terminals, this may be said with reference to railroad terminals that in the Panama Canal act the Interstate Commerce Commission, in furtherance of the coordination of traffic between water carriers and rail carriers, are given a power over railroad terminals by which, upon proper complaint being filed that any discrimination is made against any specific water carrier in the use of that terminal, a remedy may be applied by the Interstate Commerce Commission either prohibiting or commanding certain things to be done or not to be done, so that its use shall be given to all water carriers upon equal terms. So that if the public will assert their rights before the Interstate Commerce Commission, they can prevent any discrimination by railroads who own water terminals.

I do not think in any degree any port can be properly served by having all the terminals privately owned or owned by the railroads. Col. Newcomer has given the condition in Charleston. As a matter of fact, as shown by the report of the Chief of Engineers on terminals, made some four or five years ago (and which is worth reading and the Members should have it in their libraries), it appears that practically all the water front of Charleston is owned by a holding company, the stock of which is owned by the railroads which serve Charleston, and there is no municipally owned terminal in Charleston to-day; and perhaps (I am not sure upon that) if they desired to own a terminal they would have to acquire the water frontage from the railroads upon which to construct that terminal. That is a condition which ought not to exist, and I understand Col. Newcomer to be entirely in accord with the committee in this respect, that while we would not say that every terminal at a port should be publicly owned there should be enough terminals municipally owned and regulated for the use of the public to answer the demands of the public.

Mr. Frear. The Chairman has stated that very clearly.

Mr. Kettner. Mr. Chairman, I think you have just made a statement that will cause a great many members, providing they have an opportunity, to vote for the Government ownership of railroads

in this country.

Mr. OSBORNE. There is one thing I want to get clear in my mind. I think I agree with Mr. Frear in a general way, but there is this fact, that most of the municipally owned terminals and wharves are (not altogether, but partially) leased to transportation companies. It is quite natural that the first thing a steamship company wants upon going into business in a new field is a wharf, and they have to have it; they can not do business without it. And naturally the use of terminal facilities is put into the hands of those people who have

use for them, namely, transportation companies.

I think the cities ought to hold a sufficient wharfage to accommodate the transient business; that is, what is known as tramp steamers, and so on. And in our country, at Los Angeles harbor, that condition prevails. They have ample wharf facilities of a very substantial and expensive character, just completed, and they endeavor to meet the demands of transportation—leasing to established companies certain wharves and reserving for transient business other wharves—and that seems to me to be the ideal condition, so that no independent line or independent steamer shall be deprived of wharf facilities and, at the same time, that the regular transportation organizations shall be enabled to do business at the lowest expense to them and necessarily the least expense to the public.

The Chairman. Let me contribute this thought along that line. The old idea as to wharves and piers and terminals was that any individual having the necessity for the use of a wharf should own it individually. The same thought applied to any corporation; the same to any steamboat company; the same to a railroad company having a necessity for a terminal. But the trend is away from that now. The thought now is that the public shall provide the terminals, because the use of the terminals is a public necessity. It involves transportation, in which the public is interested. And, if I understand the committee, I think the proper attitude toward terminals is this—that

they shall be owned by the public, and that all who have use for them, whether rail lines or water transportation lines, shall have the privilege of using them upon equitable terms. Take Los Angeles, for example, where you have constructed very fine terminals, and in many respects they are very modern. I understand in Los Angeles that the municipality has not leased or given the exclusive use by lease to any one transportation line-

Mr. Osborne. Oh, no; I guess not. The CHAIRMAN (continuing). Of any part of a terminal; but to your regular transportation line you do give the use of that terminal upon fair terms.

Mr. Osborne. That is what I mean.

The CHAIRMAN. And you are illustrating this modern trend of thought at Los Angeles. You have a public terminal there, and you give the use of it not only to any regular line of water transportation but to any tramp vessel which may come in. Anybody may have the use of that terminal by complying with the regulations imposed by the municipality. Neither do the railroad companies which serve Los Angeles have any exclusive use of that terminal.

Mr. Osborne. No.

The CHAIRMAN. And you have a belt line which I think is municipally owned, is it not; that is my recollection?

Mr. Osborne. Yes.

The CHAIRMAN. And any of the cars serving Los Angeles may use that belt line and have the use of the terminal?

Mr. Osborne. That is correct.

The CHAIRMAN. So that in your city you are illustrating the attitude of this committee, as I understand the committee, toward water terminals; and we ought to get away from the thought that water terminals are private property. They are public and they ought to be public property—publicly owned and publicly regulated.

Mr. Frear. And one great reason for that outside of public service, Mr. Chairman, is that the Government has expended a billion dollars or over nine hundred million dollars in improving waterways for the public-not for private interests-and of course they are

paramount, the public interests.

The CHAIRMAN. The next item for which an estimate is made is

Wicomico River, Maryland, \$3,000 for maintenance.

Col. Newcomer. That is simply to provide for the annual shoaling. It is one of the cases where shoaling takes place gradually, continuing from year to year, and we have to remove it. That is the last item in the district.

(Thereupon the committee adjourned to Monday, January 7,

1918, at 10.30 o'clock a. m.)

## COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Washington, D. C., Monday, January 7, 1918.

The committee met at 10.30 a. m., Hon. John H. Small (chairman)

presiding, and resumed hearings on the estimates.

The CHAIRMAN. We begin this morning with the Washington (D. C.) district. The first item for which an estimate is made is the Potomac River at Lower Cedar Point, Md.

Colonel, in discussing the Potomac River, some question may arise as to why no estimate is made for the remaining part of the river. Will you kindly present your views on that, too?

## STATEMENT OF COL. HENRY C. NEWCOMER—Resumed.

Col. Newcomer. I was just about to recommend that an estimate of \$5,000 for the maintenance of the Potomac River at Washington be inserted. The district engineer originally put in an estimate for \$8,000 there, but we felt, on account of the funds on hand, that probably that could be omitted. He submitted a supplemental statement, however, indicating that we could reduce the amount to \$5,000, but stated that \$5,000 was really essential in order to take care of the channels up to March 4, 1919. So that I would recommend an insertion of \$5,000 for the Potomac River at Washington, for maintenance.

Mr. Booher. You think we ought to put in \$5,000.

Col. Newcomer. I think we ought to put in \$5,000. I think that amount should be provided for the Potomac River at Washington for maintenance. The \$3,000 at Lower Cedar Point is necessary in order to remove a portion of the shoaling in the channel there; not to restore the full project depth, because apparently the boats can get along with the minor amount of work. There has been no work done there for a number of years, and shoaling has proceeded to such an extent that this moderate amount of work we feel is necessary to restore the channel to a fair condition. Occoquan Creek is one where the shoaling takes place from year to year, regularly. It requires a greater expense for maintenance than the other. We need \$3,000 there.

That would make a total for the Potomac River and its tributary channels of \$11,000, if allowed, instead of \$6,000.

The CHAIRMAN. The next is the Norfolk, Va., district.

Mr. Dempsey. May I ask the chairman if anything has been done

with reference to the New York items, 6, 7, 8, and 9.

The CHAIRMAN. No action has been taken with regard to any work. We are simply going over each recommendation there for maintenance or further improvement, and then the committee will come back to them later on and decide upon what action is to be

In the Norfolk district the first item for which an estimate is

made is Norfolk Harbor, \$1,134,000 for further improvement.

Col. Newcomer. The last act authorized the 40-foot channel to the navy yard at Norfolk and provided \$900,000, which it is expected will give 40 feet for a width of about 250 feet through Thimble Shoal Channel—the outer channel—and about 150 feet through the inner channel, which is the one known as Norfolk Harbor proper. And with the additional amount asked for here for the inner channel it is expected to widen out that 150 feet to a width of 400 feet. The ultimate width is to be 750 feet. We are trying first to get a practicable through channel wth the funds on hand, and that, of course, to be widened as promptly as can be; and we thought this amount should be spent during the next year to widen it.

Mr. Booher. To 400 feet.

Col. Newcomer. The present channel is a 35-foot channel, 400 feet wide, and we expect to deepen that to 40 feet with these funds. And the same way with the Thimble Shoal Channel—the present channel is 35 feet deep and 500 feet wide. The available funds will deepen it to 40 feet for a width of 250 feet, and this \$600,000 is the amount estimated to be required to widen that out to the present width of 500 feet, 40 feet deep. The total is a million and a half for Norfolk Harbor.

The CHAIRMAN. Was there any estimate made for the channel to

Newport News?

Col. Newcomer. The channel there is now in a fair condition. It is a 400-foot channel, 35 feet deep. There has to be a widening of that channel later on, but we felt all the funds now should be devoted to the widening of this other channel. That is to be widened to 600 feet, I think, under the project that has been adopted by Con-

gress; but that is not as urgent as the other.

Then I am sorry to say I have quite an important amendment to offer to the committee in the Norfolk district. There are no other estimates, you see, either for maintenance or improvement, for the balance of the work in this district. The inland waterway from Norfolk Harbor to Beaufort Inlet should have a substantial additional appropriation made in order to complete the first section from Norfolk to Albemarle Sound. You will recall the situation there, that the Government has bought the Chesapeake & Albemarle Canal and is enlarging it. There is still the ruling depth at the lock of 8½ feet. It is to be improved to a 12-foot channel, and substantially all traffic is now going through Dismal Swamp Canal and paying the tolls It was thought last year that we had enough funds appropriated to complete it. But the district engineer has just made a report, which came in, I think, about two weeks ago, indicating that we would need a substantial amount of money in order to complete that section. That is explained partly by the marked increase in prices and partly by the much more difficult character of the work than was anticipated. For much of the work they find they encounter large cypress stumps. This is a hydraulic dredging proposition, and while they have to blast to remove the bigger stumps, the smaller ones are chewed up, and it is necessary to open up the pumps of the dredges in order to remove this excelsior that accumulates in them before they can go ahead. The consequence is that the work has proved to be more expensive than was anticipated. The district engineer tried to get the contractor, who has a part of this work now under contract, to include in his contract some of the work set aside or which was expected to be done with the Government dredge—the Government dredge doing some work now in connection with the fortifications there—but he refused to do it, because it was of such an expensive character. We are now paying from 14 to 16 cents, which was estimated to be the cost; but he estimates that the work may cost as much as 20 cents a yard. His estimate, arrived at in this way, is \$448 000 for the completion of that section. It is important not only to complete this section but also to clear up the question as to the next section between Albemarle and Pamlico Sounds, where Congress has authorized a change of route in accordance with our recommendation—has authorized it in the discretion of the Secretary of War; has not directed it. This has left the matter open to be determined dependent upon securing rights of way at a reasonable That matter is now being investigated. Congress has ruled in the law that not more than \$75,000 should be expended on the rights of way, and it is hoped to get the necessary land rights for less than that sum. I therefore recommend an item of \$500,000 for the completion of that section of the waterway.

Mr. Booner. Is that canal mentioned here on that page?

Col. Newcomer. It is about a fourth of the way up from the bottom of the page—"Inland waterway from Norfolk, Va., to Beaufort Inlet, N. C."

The CHAIRMAN. The members of the committee will remember, when we were formulating the last bill, it was decided to complete this first section from Norfolk to Albermarle Sound, and it was thought there was enough money carried in the last bill, which was \$100,000, you will remember, for completing that section and also acquiring these rights of way. And, as Col. Newcomer has explained, they have not enough money to complete that first section from Norfolk to Albemarle Sound and make the detailed surveys necessary to definitely locate the right of way of another section between Albemarle Sound and Pamlico Sound, and for that reason he makes this additional estimate or recommendation. The Chief of Engineers, through Col. Newcomer, when we had the last bill under consideration, recommended that the further construction of this waterway, after completing the section from Norfolk to Albemarle Sound, be held in abeyance—certainly at that session and possibly pending the war. That was a great disappointment to those people there, but you gentlemen will remember there was a cordial acceptance of the recommendation of the Chief of Engineers at that time, so that this estimate, I will call the attention of the committee, is necessary in order to carry out what the committee intended to carry out by the appropriation of \$100,000 in the last bill, but which was not sufficient.

Mr. Dempsey. Do I understand this increased amount is to be used in the purchase of rights of way?

Col. Newcomer. No. sir.

The CHAIRMAN. It does not disturb that in any way.
Col. Newcomer. This item, of course, would have been included in the annual estimates as printed had we known the situation when they were prepared. There has been an expenditure of about two and a half millions there.

Mr. Dempsey. I think it ought to be completed as soon as possible. Col. Newcomer. You will note there has been an expenditure already of about two and a half millions there.

Mr. Dupré. About when is this data collected on which these

reports are made and transmitted to Congress?

Col. Newcomer. They are prepared primarily by the district engineer.

Mr. Durré. I say about what time?

Col. Newcomer. In July.

Mr. Kennedy. I notice in some of these reports here, where the statistics are given, there is not much uniformity in the plan adopted by the district engineers. For instance, in some cases, like the James River and Absecon Inlet, they give the number of boats, the draft,

etc. Why isn't it possible to do that in all instances?

Col. Newcomer. The instructions call for that. They are supposed to indicate the different classes of traffic and arrange those different classes so as to know to what extent the depth provided by the project is actually required by the commerce; how much of the commerce is really using the full depth. We try to get that information, and I think you will find we are getting it more and more from year to year. It is very hard to get uniformity in these matters, and sometimes difficult to get the information.

Mr. Kennedy. Why wouldn't it be well also to segregate the freight carried by the ferries, for instance. You give the number of passengers carried by the ferries, but you do not designate the amount of freight carried by ferries. Now, that is important, from the statements you made a minute ago—from the viewpoint that there is no use in providing for a complete channel when a good

part of the stuff is ferried across the river.

Col. Newcomer. If the most of the commerce is ferried across the river, that should be indicated, but we have, also, ferries which proceed up and down a river for 20 or 30 miles, and, of course, they require a channel in the river just the same as the other commerce.

Mr. Kennedy. In the Mississippi River I see two items, for instance, in the commercial statistics there, where there are automobiles or teams carried a mile, or a mile and a tenth, across the river, which makes over \$50,000,000 of the \$97,000,000 worth of commerce. Now, that is just two items. It looks to me like we ought to have those matters segregated, so that the committee can understand what part of the traffic is carried up and down the river.

Col. Newcomer. Don't they, in that item, as it is given there?

Mr. Kennedy. We understand that the balance of the \$97,000,000 is for commerce carried up and down the river; but there might be a lot of other stuff in there which we can not segregate. For instance, take where I live; there is a ferry between where I live and Nauvoo, Ill.; according to these statistics they take the value of every wagon loaded with merchandise that goes across there and every team that takes a wagonload of coal across. Now, all those 15,000 or 18,000 people have to get their fuel from our side.

Col. Newcomer. Of course, that should appear.

Mr. Kennedy. It should appear, and it should appear in a way

that everybody could understand what it means.

Col. Newcomer. I am thoroughly in sympathy with that ideathat we should know exactly what is being done. We do not want any camouflage in the commercial statistics.

Mr. Kettner. Can this committee take any action to see that it

ie done?

Col. Newcomer. That question of commercial statistics is one of the most perplexing with which we have to deal, because there is no law now which requires manifests to be made out for all the movement of freight. There is, you know, for the foreign shipments and, I think, for the shipments between the two coasts that go through the canal, but not for the ordinary case of coastwise shipments and those on the rivers and in the interior. No records required for the movement of freight there. We simply have to get that, when the companies are willing to give it to us,

at the end of the year. Many of them do not keep their books in such shape as to enable them to do that satisfactorily. Where the traffic goes through a lock they are required to do it, and we do get a report all the time; we get that on each movement in those cases. But where there is no lockage, but simply a movement from point to point, we do not have our agents following up this thing all the time. It would be a very expensive proposition to do that, and we have been studying for a long time on the proposition of how to secure the statistics of such movement, but we have not been able to devise a program which did not seem to be too burdensome and yet permit us to get the results. But we are getting results now which I think are fairly indicative of what is being done, though we can not vouch for their accuracy.

Mr. Kettner. The reason I mentioned that—I will mention my home town because my people objected, and said it was impossible to get these records. I informed them they would have to do so if they expected help from the Congress. The result is for a year and a half I have submitted to your office a municipal manifest giving

everything in detail—which shows it can be done.

Col. Newcomer. Wherever you have a man in charge as in that instance, that can be done. But are you sure that all of the traffic of that harbor is reported for the other piers as well as for the municipal pier?

Mr. Kettner. No.

Col. Newcomer. That is the point. You have a man in charge of the municipal pier and wharf to do that, to keep a close and accurate account; but if there is no individual in charge who has that duty to perform, you can not get it.

Mr. Kennedy. Isn't there any law requiring accounts to be kept on the part of ferryboats, so that they can make an accurate report

of the tonnage to the War Department?

Col. Newcomer. There is a law which simply provides, in general terms, that those parties shall make returns when called upon. And we have called upon them and sometimes have even gone to the extent of prosecuting them under the law so as to get the returns. But if they do not have them, if they do not keep them, you can not extract them from them, of course. And there is no law which will require them to keep those returns; it is only as they may happen to have information of the character you ask for that they can give it. And we often feel very doubtful as to just how carefully their statistics are prepared.

Mr. Kennedy. Let me ask you another question. For instance, as I stated a minute ago, a ferryboat in our town takes all the coal that Nauvoo consumes. That is from 150 to 250 carloads a year. Now, every time a load of coal goes across the river, evidently in this report they have taken the value of the team as well as the value of the

wagon and the coal and put that in.

Col. Newcomer. What makes you think that?

Mr. Kennedy. Judging from the fact that they carry a great many thousands of teams, which indicates that that must be the case. And whenever an automobile goes across, with two passengers, who want to get across the Nauvoo, they take the value of the car.

Col. Newcomer. It may be; I do not know about that, I am sure. But take the case of car ferries on the Lakes, where there are a good

many of the car ferries. I do not think they have taken the value of the cars, but have taken the value of the freight. It may be the same case there. Of course they are actually transporting that, but it is hardly fair to give that as the value of the commodity.

Mr. Kennedy. That is just like taking the value of the locomotive

of the train and figuring it in with the value of the commerce.

Col. Newcomer. In this case the ferry actually carries the car, but the train is not carrying the locomotive. If they had other cars shipped on those trains, that is true. But the boat actually carries the cars, and in that sense you can say, of course, there is a shadow of justification for it. But to my mind that is not fair. They should take only the value of the commodities being transported; not the vehicles in which they are contained.

Mr. KETTNER. Couldn't you have those two items segregated showing exactly what ferry traffic there is and make a supplemental report of the ferry traffic, and not have that go into the report at all?

Col. Newcomer. It should be done in that way. Mr. Kettner. Should we write that into the law?

Col. Newcomer. I do not think so. I think that is a matter that

could simply be handled by departmental instructions.

The CHAIRMAN. May I make this suggestion for the consideration of the committee. As Col. Newcomer says there is no law complete in itself authorizing and compelling the preparation of statistics of water-borne commerce, domestic or coastwise. have a correct compilation of the records of our foreign commerce, both exports and imports, and, as the Colonel says, all that passes through the Isthmian Canal. The engineers, so far as I have observed the district engineers, endeavor to get the commerce in all our harbors and in all our interior waterways, but they operate under difficulties. I think in almost every district (certainly every one I know of) there is a man, I think an assistant engineer, who is detailed for that special work; and I am satisfied the reports we get of the commerce are not exaggerated, but that they are based upon actual facts. And if there are any errors, they are errors of omission in not giving the entire commerce, rather than exaggeration of the commerce there. But it does appear there ought to be some law on the subject authorizing the compilation of statistics of the commerce on our waterways, particularly those which are under improvement. I have no doubt the engineers would be very glad to be relieved of that duty, and possibly we might pass a law imposing that duty on the Department of Commerce. They have the machinery by which they could gather those statistics, and they would also be accessible to the engineers whenever they desired the information as to the commerce, upon which to base a report.

Mr. Dempsey. Isn't such a thing rather an unreasonable burden upon commerce? Take, for instance, the captains of the little boats running on a stream, and why should they have to make reports?

The CHAIRMAN. The assistant engineer in these districts, who is detailed to this work, so far as my observation goes, applies to the traffic manager of every steamboat line and applies to the whole-salers and jobbers, and applies to every source, and he insists that they shall make a report to him in detail, both as to the items of tonnage and value. And from that he converts it into tons and the valuation of the article and submits the statistics in his report.

As I said before, I think every report we get from the engineers as to the commerce upon any waterway, represents actual commerce; there is never any exaggeration. But they do frequently, as I have known, omit commerce simply because the parties have not kept a record or are negligent in complying with the request to furnish it. I have observed several large towns, for instance, on large waterways; when they would appoint a man and compel him to gather this commerce, it would always show up better than the previous reports of the engineers, and yet was accurate, because it was based on daily reports. I think it is a matter that may well receive the consideration of the committee, to see if we can devise some plan. There would be no objection on the part of the engineers to have this done by some other department, would there?

Col. Newcomer. No, sir; not at all. As I say, it is a very perplexing matter and we have been considering it but are simply unable

so far to propose a satisfactory law.

Mr. Booher. Would not the benefits be better derived by creating a separate department? I am getting pretty near to the point where I am ready to draw a halt on the creation of bureaus. We start one of those bureaus and it grows for years and years, and I do not believe that the best benefits can be obtained in that way. My own notion is that if it is approximate—that is, if you get at this approximately, except in a few instances—that is sufficient. For instance, here is a little boat; you are not going to get the captains to put clerks on boats, putting in hours and days and days figuring the exact number of pounds being hauled on those boats. You do get it approximately, though. But I do believe that we should do it by the creation of a separate department, or bureau, you might say, although the thing, just like every other bureau, will need, after a while, an appropriation of \$2,000,000 or \$3,000,000 annually and require 200 or 300 clerks.

Mr. KETTNER. Mr. Dempsey, if that captain knew that the appropriations they were asking for depended upon the accuracy of his

report, don't you think we would get it?

Mr. SWITZER. Do you suppose a captain on the Ohio River is going to fool around there or care about what appropriation they

will get? He does not care about appropriations.

Mr. OSBORNE. Mr. Chairman, I have been listening to this discussion. It appears to me, for the purposes of this committee, that the simple suggestion of segregating the ferriage commerce from the other commerce is all that we need.

Mr. SWITZER. That is done on the Ohio River.

Mr. Osborne. The ferriage commerce is put in for some streams but not for others. For instance, take the Straits of Carquinez, before you get into San Francisco; there is a ferryboat that crosses there with every train that goes to San Francisco, and all of the passenger trains are carried over on that ferry. If that were included in the commerce of Port Costa and Benecia there would be an enormous commerce; it would be millions and millions of dollars, and, of course, it is manifestly improper that it should be so considered. These places along the western rivers, where they have ferries, simply put in so much ferriage and the balance is actual commerce up and down the river, which will answer our purpose. I am

like Mr. Booher; I think the creation of a new agency for handling

that business would be a waste of money.

Mr. Kettner. Mr. Chairman, I would like to inform my colleague, Mr. Osborne, that the commerce from Oakland to San Francisco is given in the report.

Mr. Osborne. Is it from the Straits of Carquinez?

Mr. Kettner. No.

Col. Newcomer. That is not carried in the same sense it is above. They do not carry trains across, you know.

Mr. Kettner. No.

Col. Newcomer. They simply carry goods and passengers. That is about a 5 or 6 mile trip.

Mr. Osborne. That ought to be put under the head of ferriage;

that is not commerce.

Mr. Kettner. Sometimes they do.

Mr. OSBORNE. In fact, it seems to me that a ferry is the same as a bridge—a means of getting across a stream.

Mr. Dupré. Except, of course, when they run down the stream for

20 or 30 miles.

Mr. Osborne. Oh, yes; that is, of course, a different proposition.

Mr. Frear. Might I offer a suggestion along that line in order that the colonel might enlighten us a little later on. In 1913 on the upper Mississippi River the engineers added to the estimates submitted automobiles ferried across the river, which were something like \$9,000,000 in value; and that item was criticized very strongly on the floor of the House, statistics covering automobiles across the river for a short distance. Col. Townsend also criticized that very severely, as Col. Newcomer will remember, in his statement before the Rivers and Harbors Congress. This item was omitted in 1914 and 1915, but on page 2718 of the present (1917) report appears "Automobiles, \$41,000,000"; and the engineers have reinserted this item, which makes up 45 per cent of the total commerce on the river, carried 1 miles across the river. The importance of all that lies in the fact that the engineer's report speaks of the additional business—of the increase in business, I believe—and the increase in business lies practically in this \$41,000,000 in automobiles, as I take it.

The CHAIRMAN. What page did you refer to?

Mr. FREAR. Page 2718.

Mr. Dupré. But they have segregated it.

Mr. FREAR. They have segregated it at this time, but added it apparently to enlarge the value of the tonnage.

Mr. Dupré. No; in order to give the information.

Mr. Frear. But it was not given last year or the year before. It was in the third year before and was stricken out because of the criticism that was made.

Mr. Dupré. The third year it was by bulk, as I understand.

Mr. Frear. No; it was then itemized.

Mr. Osborne. Of course, that is evidently unfair.

Mr. Frear. Here is another suggestion, Colonel, if you could give us some information when we reach this river. I have picked it out because it has a bearing upon this matter. Two hundred and seventy-two thousand tons of miscellaneous traffic is bulked at \$40,000,836. The reason I speak of that is because all that miscellaneous com-

merce has jumped very materially. It is only carried, on an average, 0.40 mile, and we ought to know what kind of commerce that is.

Mr. DUPRÉ. What page is that?

Mr. Frear. It is for the upper Mississippi. It is one I happen to be familiar with, because I have lived there. Teams comprise \$8,000,000 of this total, carried 1 mile.

Col. NEWCOMER. I think undoubtedly those ferriage items ought

to be omitted or reported separately.

Mr. Frear. If they are omitted, it takes over one-half, or nearly two-thirds, of the value of all the river commerce. I speak of that because I know you may not be aware of that now, and I thought you might get some information for us.

Col. Newcomer. That is not ferriage, because it is a greater distance for which that is carried. The distance for which that is car-

ried is 40 miles.

Mr. Frear. I was wondering what it is. It is not merchandise. We have a separate item under merchandise up above which reaches \$3,000,000.

Mr. Dempsey. Haven't you some other information in your office

about that?

Col. Newcomer. We haven't any further detailed reports in our office than are given in the district engineers' reports. These, of course, are summaries in the first volume in less detail; but these tables in the second volume give all the information we have; and in order to get further information on that we would have to correspond with the district engineer. You must know, of course, that these figures presented are the result of a great deal of labor in collecting those statistics and collating them from a great many individuals, and they doubtless have there the information upon which that is based. I will make an inquiry there about that item and let the committee know the result.

The CHAIRMAN. The next is the Wilmington, N. C., district, and the first estimate there is for Pamlico and Tar Rivers, N. C., \$9,000

for maintenance.

Col. Newcomer. The items for maintenance for that group, and, in fact, all through that district, as shown here, provide for those cases where there has been a shoaling. They are all substantially completed projects, and the annual shoaling has proceeded to such an extent that these sums are considered essential to restore the project dimensions—\$9,000 for the Pamlico and Tar, the same amount for the Neuse River, and \$1,200 for Contentnea Creek. The details, of course, for those are given, so far as the details are available in the report at the pages given for those different works.

The CHAIRMAN. They are all small items. Col. Newcomer. They are all small items.

The CHAIRMAN. And all of them are necessary for maintenance, as I understand?

Col. Newcomer. Yes, sir.

The CHAIRMAN. The next item is Beaufort Harbor, N. C., \$4,000 for maintenance.

Col. Newcomer. That is a similar situation—a case where the shoaling proceeds progressively from year to year and requires annual care.

The CHAIRMAN. And in the same group is the waterway connecting Core Sound and Beaufort Harbor, N. C., \$2,000 for maintenance: waterway between Beaufort Harbor and New River, N. C.—that is, the portion between Beaufort and Swansboro-\$4,500 for maintenance; Morehead City Harbor, N. C., \$2,500 for maintenance.

Col. Newcomer. Those are all items of the same type.

The CHAIRMAN. I observe there is nothing for Beaufort Inlet, N. C.

Col. Newcomer. Beaufort Inlet is one where shoaling takes place also, from year to year, and requires constant work if you wish to keep the project depth; but that full depth apparently is only required in connection with deep-draft tugs that have been taking out stone for the construction of the breakwater at Cape Lookout. Work on that breakwater has been suspended now, due to war con-We have asked for no additional money, as the funds already provided had not been fully expended, and it was not considered necessary to keep the full project depth over the bar. We have funds that will be sufficient to keep the dredges working that we have there, which will take care of the immediate needs.

The Chairman. For the commercial steamers, tugs, and barges?

Col. Newcomer. Yes, sir.
The Chairman. The next item is for Cape Fear River, at and below Wilmington, \$30,000. That is a very important river, Colonel.

Will that amount be sufficient?

Col. Newcomer. I think that amount will be sufficient for main-They require, of course, constant work on that 26-foot project from Wilmington to the sea, both on the river and bar, and this amount, I think, will be sufficient, with the amount in hand, to The project has not been commaintain the present dimensions. pleted yet, but we have not asked for any money for its completion because we think the dimensions already provided will probably suffice under present conditions. The commerce, as a matter of fact, has diminished since the outbreak of the war. The principal item there was fertilizer-

The CHAIRMAN. Fertilizer and cotton.

Col. Newcomer. Yes; fertilizer and cotton were the two principal items and, of course, the movement of fertilizer has diminished very Now, however, it is proposed to divert considerable materially. traffic from the North Atlantic to the South Atlantic and Gulf ports, and these ought to be maintained for that reason. This amount will be sufficient, I think, for Wilmington.

The CHAIRMAN. Inquiry has been made as to why there is no estimate for appropriation for further improvement there. Is it regarded that the present ruling depth will accommodate the larger

class of vessels on the lower Cape Fear?

Col. Newcomer. Yes, sir; the 26-foot depth, with the tide, will probably suffice for the movement of boats using that harbor. There has been a recommendation just made to Congress for an increased depth across the bar, so that the vessels need not be delayed in entering, on account of storm conditions there.

The CHAIRMAN. That, however, is a new project.

Col. Newcomer. That is a new project and is not included in the ^atimates.

The CHAIRMAN. Cape Fear River above Wilmington; there is an estimate of \$12,000 for maintenance and \$40,000 for further improvement.

Col. Newcomer. That is a lock and dam project. The \$40,000 are estimated—you will find the estimates given in some detail on page 603 of the annual report—for further improvement in the way of dredging the channel above the locks. The locks have been built on the Cape Fear River, and the project provides for a depth of 8 feet. As a matter of fact, we do not consider the full project depth necessary. The craft at present using that stream draw from 4 to 5 feet, so that we expect to give, with this \$40,000, a practical channel for the present craft. You see, the estimated amount to complete is about \$91,000, and we only ask for \$40,000 at this time. The \$12,000 is for the operation of the snagging boat to keep the stream clear from snags and other obstructions.

The CHAIRMAN. The committee will be interested in a bit of information regarding Fayetteville, which is at the head of navigation on the Upper Cape Fear. A gentleman was here a few days ago on the subject of the letter from the committee to the Secretary of War, and the reply of the Secretary of War, which was communicated to them through the district engineer, and he said that they were taking steps and had gotten through an issue of bonds for \$60,000, as I remember, for the purpose of constructing a terminal there.

Mr. Kennedy. Then it is doing some good?

The CHAIRMAN. Yes; and there are quite a number of other letters which I will get together and bring to the attention of the committee sometime, showing the results of the committee's action.

We now come to the Charleston, S. C., district. The first item there for which an estimate is made is for Winyah Bay, of \$50,000

for maintenance and \$50,000 for further improvement.

Mr. Frear. May I make an inquiry in regard to Wilmington? The Wilmington project does not appear in the index, does it, in any way, except for the whole district?

Col. Newcomer. It is under the head of Cape Fear River.

The CHAIRMAN. And Cape Fear is divided into "at and below Wilmington" and "above Wilmington."

Col. Newcomer. If you will notice, Mr. Frear, in the very first

column in this committee's book they give the page.

The CHAIRMAN. Colonel, we will be glad to hear from you about Winyah Bay.

Col. Newcomer. There is an 18-foot project for Winyah Bay to Georgetown, which has been completed so far as dredging the channel is concerned and the jetties for the protection of the channel at the bar; but there are still some training walls to be built in order to protect the channel from shoaling and reduce the maintenance cost. The \$50,000 for maintenance is necessary for the operation of the dredge to keep the channel clear and restore the project dimensions. The other \$50,000 is for continuing work on that training wall for which some funds were provided last year. You see, that is the estimated amount required to complete.

Mr. Kennedy. Does that project accommodate any other commerce? The commerce is very small there for the amount of money

spent, and I was just wondering-

Col. Newcomer. This is the port, as you know, for Columbia, S. C., and other cities in that region. It was expected that they would develop a considerable commerce, but they have not done so on a very

large scale vet.

Mr. Kennedy. I know when I first came on the committee there was a good deal of opposition to that project. There was a Member of Congress from South Carolina on the committee at that time, and I know Mr. Sparkman was not very friendly to the amounts that we were appropriating for that commerce. But I was just wondering whether it accommodated any commerce outside of what is shown here?

Col. Newcomer. They do not have a very extensive commerce yet, and it is not very likely to become so. Of course, the project depth is not deep enough for many of the coastwise vessels—only 18 feet.

Mr. Kennedy. But we have spent large sums there.

Col. Newcomer. It is very true there have been heavy expenditures with only a very moderate development of commerce. But with this expenditure now we hope we will reduce the annual maintenance cost by building the training walls.

Mr. Kennedy. Nothing is given as to the depth; what is the depth

provided in the project?

Col. Newcomer. Eighteen feet.

Mr. Kennedy. Has that been completed?

Col. Newcomer. Yes, sir; the project depth has been completed.

Mr. Kennedy. It is not mentioned here.

Col. Newcomer. It is given on page 617 of the annual report. This \$50,000 now asked for is the final item in the estimate for completion. There is an item now for an examination of this harbor with a view of providing increased depth. That, of course, is a matter that will be reported on later.

Mr. Kennedy. What is the increased depth asked for? Col. Newcomer. That has not been definitely decided.

Mr. Kennedy. They have now 18 feet.

Col. Newcomer. They have now 18 feet. The report has been sent back—it was submitted once, in fact, with an adverse report, and the local Congressman felt that the matter had not been properly submitted and asked that it be referred again, particularly as to what depth would best be adapted to the needs of the locality.

Mr. Frear. In those cases, Colonel, do they furnish any evidence to your board in order to show the necessity of going on and making these surveys, or is it just at the request of the local Congressman?

Col. Newcomer. Whenever an item is inserted authorizing an investigation of any locality, we always take it up, of course, with the local parties to find out what they want, if there is no specific statement other than a statement of the locality to be considered, and we give them every opportunity, of course, to present the matter in any way they might see fit, so that the subject may be thoroughly ventilated and prevent any claim being made that they were not given a hearing in the matter. And invariably, of course, whenever a Congressman, or any other person for that matter, asks for an opportunity to present the facts, he is given that opportunity.

The CHAIRMAN. The commerce there does not show as favorably as one would expect. In order to give them the benefit of any other 's, I will call the attention of the committee to the note on page

620, which says that "the above figures do not include 45,741 tons of freight, valued at \$2,421,204, passing over Georgetown Bar, representing traffic between ports to the north and south of Georgetown, and entering Winyah Bay, incidental to its being a port of call, nor do they include 77,219 tons, valued at \$2,089,788, of internal freight traffic between Georgetown and rivers tributary to Winyah Bay."

Mr. Frear. I am asking whether it accommodated any other traffic

outside of that?

The CHARMAN. Yes; it does. And still it is unquestionably true that Georgetown itself ought to show a larger commerce than 237,000 tons, although there has been a large falling off in the tonnage there. Lumber represented the principal item there, and there has been a large falling off in the movement of lumber, which, I guess, represents that decrease.

Mr. Dempsey. How large a place is Georgetown?

The CHARMAN. About ten or twelve thousand population.

Col. Newcomer. I might state in connection with this discussion of commercial statistics that in several places where local commerce is not of much importance they have tried to include in their statistics of commerce the entire cargo of the boat which came in to call at their port. They state very truly that that boat passed through the channel, and therefore the channel is entiled to a statement of its commerce. As a matter of fact that commerce was included here and was separated in our office with this note. We did not think that cargo was part of the commerce of that port, when it was merely carried by boats calling there on their way to other points.

Mr. Booher. Why would not that be fair to do it?

Col. Newcomer. We want to give the figures showing the commercial importance of the harbor at that locality.

Mr. Booher. It would not have gone to that harbor unless this

river was improved.

Col. Newcomer. That is very true; but the purpose for the improvement of that harbor is to take care of the local commerce.

Mr. Booher. That is the way it appeals to you—that it is to take

care of the commerce which originates or is destined there?

Col. NEWCOMER. Yes.

Mr. Frear. Along that line of commerce statistics, just one question as to the report on the Tennessee River. The engineers now report boats carrying freight cars that were never opened, but they were carried as commerce, and they reported that.

Col. Newcomer. I think that is quite proper; that is, if they give

the cargo that is on those freight cars.

Mr. Frear. They do not give the articles, but give the total tonnage reported to them. On what theory is that added for the ferri-

age of those freight cars across the river?

Col. Newcomer. On the Tennessee River, that is a place where it moves, I think, from Hobbs Island to Guntersville. The distance is about 22 miles on the river between their terminals, so that they make a substantial use of the river there. In other words, this is not like the ordinary ferry.

The CHAIRMAN. The next item is the inland waterways between Charleston Harbor and Alligator Creek, opposite McClellanville, \$5,000 for maintenance. Have you any comments, there, Colonel?

Col. Newcomer. That is a minor project, but it is one of a great deal of local importance, because that is the only means of outlet the people have there, through this waterway. As a matter of fact, this \$5,000 will not provide the full project depth; it was all, it seemed to me. we were justified in asking, in view of this small tonnage there, and it seems to me they ought to get along with that amount.

Mr. Kennedy. What is the depth?

Col. Newcomer. Four feet. The district officer, in this case, asked for a substantially greater amount, but in view of this small tonnage we felt this was all that should be given.

The CHAIRMAN. The commerce is small and it is local, but it seems to be of a great deal of importance to the locality. As I recall, they

have no other means of transportation?

Col. Newcomer. That is right. It is a very isolated place, and you

can only get to it by boat.

The CHAIRMAN. Charleston Harbor, S. C.: The estimate is \$40,000

for maintenance and \$70,000 for further improvement.

Col. Newcomer. Congress, at its last session, adopted the 30-foot project for Charleston Harbor and appropriated \$70,000, I think it was, and this is to complete the new project to the 30-foot depth. The item of \$40,000 is required for the annual shoaling.

The CHAIRMAN. We next come to the Savannah district, Georgia. The first item there is Savannah Harbor, for which there is an esti-

mate of \$100,000 for maintenance.

Col. Newcomer. We have not asked for any additional money for further improvement at this time, because we believed that the amount provided at the last session of Congress would probably suffice until the next bill is taken up. That is a case where there is very extensive shoaling from year to year, and we feel an additional amount of \$100,000 is needed for maintenance work.

The CHAIRMAN. We adopted a project there, in the last bill, and the amount available on June 30 last was \$1,148,522. Is it considered that is all you can proceed to expend during the next fiscal year on

the new project?

Col. Newcomer. Yes, sir; I think so.

Mr. Booher. Is that amount on hand now?

Col. Newcomer. Oh, no, sir; not on hand now. That was on hand substantially as of the 1st of July, although it takes in, of course, the appropriation made August 8—that is, it was the amount available generally for the fiscal year. We have bought a dredge there from the Panama Canal, which we got at a very reasonable figure, that is going to enable us probably to carry out that project at a lower figure than we had estimated.

The CHAIRMAN. The next item is Sapelo Harbor, Ga., for which

an estimate of \$2,000 is made for maintenance.

Col. Newcomer. That is a case where there is an annual shoaling. It is a lumber-shipping point, and experience indicates that the shoals re-form from year to year. We have about \$2,000 on hand and will need \$2,000 for the next year. The same way with Satilla River—the two, the Sapelo and Satilla, are similar cases, where the annual shoaling requires about that amount to keep the channel open.

The CHAIRMAN. The next is a system of rivers, the Altamaha, Oconee, and Ocmulgee Rivers, Ga., where there are items of \$5,000,

\$10,000, and \$25,000 for further improvement.

Col. Newcomer. While put down for further improvement, that is mostly for maintenance and only to a small extent for improvement. You will recall in that case that the project is rather of an indefinite nature. They have substantially 3 feet and want to get 4 feet, but the expense involved in that was considered so great that instead of adopting a project with a 4-foot depth we adopted a project for an annual expenditure of \$40,000 to maintain the existing channels and to improve them as much as other current needs will permit from year to year. And they are making a gradual progress toward a somewhat greater depth.

Mr. Frear. There has been a great deal of criticism about those three projects. Can you say what is the general condition there and

the possibility of their being used to a greater extent?

Col. Newcomer. I do not know that anything new or additional can be said on the subject. There always has been, as you say, criticism on account of the commerce. There is now a substantial commerce of timber, and there is a boat line using those streams which has been continuously in operation; but its tonnage is not large. I understand they are planning additional barges.

Mr. Frear. That is, you mean on the three rivers one boat?

Col. Newcomer. Yes, sir.

Mr. Frear. We are spending a million dollars on it, apparently, so

The CHAIRMAN. There is apparently a stronger disposition there than has heretofore existed to develop commerce on those rivers; and I do not think, even under war conditions, the commerce has fallen off to any extent. The report of the engineers, upon which this project was based, limits the annual expenditures to \$40,000, as I recall, and the people of that section have been anxious to have that limitation removed. I have stated to them that the committee would be glad to know that they are utilizing the river more fully before they give favorable consideration to a larger annual appropriation.

Mr. Frear. May I ask a question before we pass from that? I notice on page 687—I want to speak of this because this has a bearing on many other comments made all the way through—it says: "Marked difference in value of commerce for 1914 and 1915 is on account of classified freight having been reported as general merchandise in 1914 and an overestimate of the value of the same." In other words, the tonnage on that river has decreased since last year about 50 per cent, or very nearly so; but the value is put at an increased amount. Now, on what basis do they say that the value is overestimated? Who overestimates? Who reports this to the engineers, and how do you correct that? That is on page 687, and there are these comments so frequently I was wondering what is the basis for making that correction.

Col. Newcomer. That is simply an estimate made by the district office as to the value, based upon information given him by shippers.

Mr. Frear. Yes.

Col. Newcomer. We have substantial agreement, I suppose, in certain sections as to the value you will place upon certain items of

commerce, depending upon their character. For instance, we know that at Providence, R. I., the products of cotton and things of that kind, will warrant a certain basis. In other places it is different. This note apparently means that some of the commerce was classified under the wrong item and in that way gave a wrong value for the whole commerce, because a certain value per ton is assigned to each item.

Mr. Frear. Understand I do not mean that the report is not correct, but you will notice on page 687 that, while the commerce has decreased one-half, or substantially that, the engineers report an increased valuation.

Col. Newcomer. I noticed that, although in 1914 there is some

difference.

Mr. Frear. I understand. I do not think there is any question about their not being accurate.

Col. Newcomer. That was a very high value in 1914.

Mr. Frear. On what basis was it figured in 1915 and 1916, when the commerce was reduced nearly one-half?

Col. Newcomer. I judge that all values, of course, have increased.

Mr. Frear. That is an increase of 100 per cent.

Col. Newcomer. Substantially, if the commerce was of the same kind. These figures for the value of that commerce are given in detail on page 2275 in the second volume, where the engineer's report is found.

Mr. Frear. The principal items there are fertilizer and oak

Mr. Dempsey. Fertilizer has gone up about two or three times what it used to be, has it not?

Mr. Frear. Yes.

Col. Newcomer. I do not know why oak blocks should be so high—that is something less than \$20 a ton.

Mr. Dempsey. I paid \$5 for a quarter of a load of pine.

Col. Newcomer. Yes. Twenty dollars a ton, of course, seems rather high for oak blocks. Still it may be a fair value; I do not know.

The CHAIRMAN. I doubt if that is excessive.

Brunswick Harbor, Ga.: For maintenance, \$20,000.

Col. Newcomer. That amount is needed, in addition to the available funds, in accordance with recent experience, to maintain the present project dimensions there.

Mr. Kennedy. What depth do they have there now; what is the

project depth?

Col. Newcomer. That is a 23-foot project at low water and 30 feet at high water.

Mr. Kennedy. There is a new project?

Col. Newcomer. They have asked for an additional depth, and an additional depth has been recommended but not yet adopted. It was in the bill that passed the House before and failed in the Senate. The Chairman. There was a very considerable agitation when the

The CHAIRMAN. There was a very considerable agitation when the last bill was under consideration for the adoption of a new project there.

We now come to the Jacksonville, Fla., district, and the only estimate in that district is for Miami Harbor, Biscayne Bay, Fla.,

\$20,000 for maintenance.

Col. Newcomer. It is the only one on that page, but there is another page for this district. The Miami project is a new one and just being completed. It is based upon considerable local cooperation, which they are furnishing, and this \$20,000 is deemed essential in order to maintain the project depth. We do not know yet just how that project is going to turn out, because, as I say, it is just being completed with an 18-foot channel from Miami to the sea.

The CHAIRMAN. In the case of the Miami Harbor improvement there has been, as Col. Newcomer said, generous cooperation there. Do you think the \$20,000 is sufficient for the maintenance of that

18-foot channel?

Col. Newcomer. Yes. sir; that is the amount that is considered necessary. In that case it is the amount the district engineer put in, and it was not reduced.

Mr. FREAR. What is the meaning of that memorandum on the side here? It says "Practically none of this commerce was benefited by the channel under improvement but were it not for the dredging operations this channel would be more serviceable than the main entrance at Cape Florida."

Col. Newcomer. That, obviously, is a note taken from the annual

report.

Mr. Dupré. Isn't it a clerical error, or a typographical error?

It seems to be contradictory.

Mr. Frear. Does it mean this dredging interferes with the traffic? Mr. Dempsey. No; it means the channel at Cape Florida is more important and it is the dredging that makes it so. It does not say what is the good of this one.

Mr. Frear. This channel, as I recollect, runs along the bank quite a way, whereas the other channel just crosses the bay into the jetties over toward the city. This channel runs along the bank for a distance

of 2 or 3 miles.

Col. Newcomer. That note, of course, was made by Mr. McGann, and just where he got that last part of it I do not know. The annual report states that practically none of this commerce was benefited by the improvement of the channel. Of course, that channel is not completed yet and has not been available. The significance of the other item I do not know.

The CHAIRMAN. Look at page 724, the last sentence in that para-

oranh.

Mr. Frear. The present channel will be, of course, the desirable channel when it is completed. The one you are working on now runs 2 or 3 miles along the bank. The other was built for private parties as a sort of cut-off across the bay.

Col. Newcomer. That simply means the dredging operations of that channel now prevent its use; so, of course, the commerce that

would use it has to go through the other channels.

Mr. Durré. I think we understand it—that were it not for this dredging going on there now this channel would be better than the present one.

Col. Newcomer. That is the idea.

Mr. Dupré. There is nothing inconsistent about that.

The CHAIRMAN. Colonel, that situation is not entirely clear to me, unless it is due to the fact that for the calendar year 1916 that this project was under construction and therefore could not be used.

Col. Newcomer. That is the idea.
The CHAIRMAN. That is the explanation?

Col. Newcomer. Yes, sir.

The Chairman. Mr. Frear, it seems that the explanation is that during the calendar year 1916, which is represented in this estimate of commerce, the project was under construction and therefore could not be used.

Col. Newcomer. That is, the new channel could not be used.

The CHAIRMAN. Yes. Col. Newcomer. I think it could be used to some extent, but the dredging operations interfered with its use.

The Chairman. This is 1917, while this commerce here represents the calendar year 1916.

Col. Newcomer. Yes.

(Thereupon, at 12.10 o'clock p. m., the committee adjourned until to-morrow, Tuesday, January 8, 1918, at 10 o'clock a.m.)

## COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Washington, D. C., January 8, 1918.

The committee at 10.30 o'clock a.m. proceeded with the hearing

on the estimates, Hon. John H. Small (chairman) presiding.

The CHAIRMAN. We had not completed the Jacksonville (Fla.) district yesterday, and we will now continue. Page 22 of the committee book: The first item for which an estimate of appropriation is made is Caloosahatchee River, Fla., \$4,000 for maintenance. Colonel, are there any comments on that?

## STATEMENT OF COL. HENRY C. NEWCOMER—Resumed.

Col. Newcomer. That is the amount expended from year to year for annual maintenance. We have about that amount on hand now, \$5,800, and need the additional amount for the maintenance of that channel. It is the only item in that group that requires it.

Mr. Kennedy. I notice there is nothing asked for the St. Johns

River; is it because you have sufficient money on hand? Col. Newcomer. Yes, sir.

Mr. Kennedy. I thought we had not gotten away from that.

Col. Newcomer. The project is nearly complete, for one thing-Mr. Kennedy. Of course, the maintenance charge is pretty heavy.

Col. Newcomer. The maintenance charge is pretty heavy. got an appropriation last year for the maintenance of the jetties.

Mr. Kennedy. For \$300,000.

Col. Newcomer. Yes. We have enough money there for the

present.

The CHAIRMAN. The next item is Hillsboro Bay, Fla., for which there is an estimate of \$20,000 for maintenance and \$300,000 for further improvement. It is the only estimate in that group.

Col. Newcomer. We have here a new project for a depth of 27 feet authorized in the last bill, which carried an appropriation of \$300,000.

Mr. Kennedy. You consider it important that we complete that,

don't you, as quickly as possible?

Col. Newcomer. I would not say complete it as quickly as possible,

but complete it in the course of three or four or five years.

Mr. Kennedy. I noticed in the hearings before the Senate Committee on Commerce, on the Mobile project, they claimed Tampa did not need any more water; that they never loaded a full cargo of phosphate rock; that it was not economical or desirable to do it; and the boats came to some other Gulf port and finished the cargo. And they complained there was no necessity of comparing their needs to Mobile, for instance; that Tampa did not need the additional 3 feet.

I had a talk with a sailor here in Washington since then, and I just happened to ask him how it happened that he was in the Naval Service. Well, he said he had been on the water a great deal and had been on the vessels that called at Tampa for this phosphate rock. I remembered what the party said at the Mobile hearing and asked him

about the proposition, and he said that it was true.

Col. Newcomer. That is reported to us also; but the reason for it is they can not take it out because they do not have enough water.

Mr. Kennedy. They don't load to the depth they now have, he said.

Col. Newcomer. I think that is a mistake.

Mr. Kennedy. That is the contention in the Mobile hearing, that fully one-third the vessels that made the port, they said, went to New Orleans and Mobile and finished their cargoes.

Col. Newcomer. That is the same situation that is told to us, but that it is because they can not load a full cargo. In other words,

those vessels have a loaded draft of 26, 27, 28, or 29 feet.

Mr. Kennedy. The contention is they do not load to the depth they have there.

Col. Newcomer. The figures submitted to us indicate that they

have utilized the depth they have.

Mr. Kennedy. The reason I asked the question was I noticed in the report great stress is laid on the fact they needed additional water to move the phosphate rock.

Col. Newcomer. That is true.

Mr. Kennedy. And I had seen that in the hearing, and it was afterwards verified by this fellow, with whom I talked, to some extent. He did not know the reason, but he said they did not load to the depth they had there, but went to Mobile.

Col. NEWCOMER. I think that is a mistake. Mr. Kennedy. It may be it is a mistake.

Col. Newcomer. It is true they do not load a full cargo, but it is simply because they can not carry out a full cargo with the present channel. I do not see any reason why they do not put on a full cargo, other than that.

Mr. Kennedy. They say it is not economical to do it.

Col. Newcomer. You mean to say they can get a better paying

cargo at these other ports?

Mr. Kennedy. This boy did not know why, but he said they did not do it; he knew they did not take a full cargo of phosphate rock, but went to Mobile or New Orleans and finished their cargo.

Col. Newcomer. That has never been brought to my attention before.

Mr. Dempsey. As a usual rule, it is a cheap cargo.

Mr. Kennedy. I do not know whether it does not carry well or it

would not pay them to do so.

Col. Newcomer. The only reason I can see is that they get a better paying cargo at some other point, some other commodity which they can load easily at better rates, and therefore they would not want to take this lower-class commodity. This is the first time this has been brought to my attention, this particular point that you mention. They have been urging that the project be deepened to 30 feet because many of those boats draw 28 and 30 feet when loaded. In fact, the boats go out now with only a part cargo and then lighter some of this product to the deeper water.

Mr. Kennedy. That statement in the Mobile hearings is what I base this on. And then I thought about what was disclosed in that hearing. He said he did not know the reason, but that they did not

take on a cargo to the extent of the depth there.

The CHARMAN. That statement in the hearing before the Senate committee on Mobile was called to my attention, and I asked some one from Tampa about it. It may have been Mr. Sparkman; I do not recall definitely as to that. But the contention was that the statement in the Senate hearing was not correct as to Hillsboro.

Mr. Kennedy. That may be the case.

The Chairman. You have to look somewhat askance at statements made by one port against a rival port.

Mr. FREAR. I suppose by the same rule we should look askance

always at the statements of the local committees.

The CHAIRMAN. Yes; they will emphasize their merits, whatever they are—naturally.

ney are—naturany.

The next item is one of \$8,000 for removing water hyacinths from

the navigable waters of the State of Florida.

Col. Newcomer. That is a somewhat smaller amount than is usually appropriated for that purpose, but with the funds on hand we believe it is sufficient. It is work that is continuously in progress and, as you remember, has to be kept up from year to year.

Mr. Kettner. Mr. Chairman, I have had the good fortune with members of the committee of seeing some of the hyacinths since our

last meeting, and I do not believe there will be an objection.

Mr. FREAR. The only criticism I urge to that is, I notice in the

column headed "Percentage of completion," you put a star.

Col. Newcomer. I do not know whether it will be indefinitely required, but at least up to date we have not found any method of permanently eradicating these water hyacinths. And I do not know whether we will ever get a method of permanently eradicating them.

Mr. Dempsey. We had more trouble with that item in the last bill, for the water hyacinths, on the floor than on everything else put

together.

Mr. Osborne. I would very much dislike to see this item taken out, because it would deprive us of a source of humor, which seems to be inherent. It would be really cruel to take out an item from which some of the Members of the House derive so much pleasure, and which gives them an opportunity of exercising a somewhat sluggish wit.

Mr. Frear. I have never made any particular criticism about this item

The CHAIRMAN. I can say for Capt. Osborne, Mr. Frear, that he

was not referring to any member of the committee.

Mr. Frear. I can say this, that there are plenty of items in the rivers and harbors bill that will afford us an opportunity for criticism aside from that.

The CHAIRMAN. I do not believe you have reference to this bill. Mr. Frear, No; not to this bill. I had reference to previous bills of the Rivers and Harbors Committee.

Mr. Dempsey. May I ask a question right here?

It has no reference to this item. We have, Col. Newcomer, up in western New York, a matter about which I talked to you over the telephone, for the enlargement of the entrance to Buffalo Harbor. The Chamber of Commerce up there seems to think they never have been able to get a sympathetic hearing from the local officer. They seem to think he is out of touch with the local situation. Now, that is a large port. From the standpoint of tonnage, I guess it is as large as any port in the United States, isn't it?

Col. Newcomer. No; oh, no, sir; not that. But it is very im-

portant.

Mr. Frear. It has less than 20,000,000, while at Superior-Duluth it is 50,000,000.

Mr. Dempsey. Well, one of the largest.

Mr. Frear. Third or fourth, but very large.

Mr. Dempsey. I am content to put it there, then. Now, they are really very greatly dissatisfied up there. It is a general business dissatisfaction with the kind of report they get, or the failure to get reports from the local officer; and they think—I am not saying it is so at all—but there is a very general feeling that the local office is not in touch with the business situation, and does not attempt to get in touch with it from the business standpoint, but that they consider it solely from an engineering standpoint. And I was wondering if it would not be possible for us, at a hearing here, to have representatives of the Chamber of Commerce and have Col. Warren come down here for a hearing and examination, and find out what there is to it. and see if we could not reconcile their differences and make a more harmonious family there than they are now.

The CHAIRMAN. What is the particular phase of improvement

there or proposed improvement about which there is complaint?

Mr. DEMPSEY. They say the entrance is so narrow it is absolutely dangerous. That seems to be the contention of the vessel men and those interested in shipping, and the business men generally. And they say they never have been able to make the slightest impression upon the local officer as to it at all.

Col. NEWCOMER. I might say that the local officer has been supported by the Board of Engineers for Rivers and Harbors and by the

Chief of Engineers in that matter.

Mr. Dempsey. That is very natural.

Col. NEWCOMER. Oh, no.

Mr. Dempsey. That is very natural, for you take his report as prima facie evidence and might not go beyond it.

Col. Newcomer. No. He submits all the data furnished by local

interests.

Mr. Dempsey. What we want to do is to have a general hearing and see if we can not convince the engineers that they are wrong.

Col. Newcomer. Of course, these adverse reports upon the widening of the entrance to Buffalo Harbor have been submitted to Congress, and a right of appeal exists. It is quite proper, I suppose, for the local committee to appeal to this committee from the adverse

decision of the local officer and the Chief of Engineers.

I might explain briefly that the situation is this: For a great many years the entrance to Buffalo Harbor was obstructed by its use by the Delaware & Lackawanna Railroad Co. for berthing boats along its coal pier. It was the Government pier which they had gotten possession of in some way, and the entrance to the channel, which is about 200 feet wide, was obstructed by the coal boats which were being loaded there. They have a beam of about 60 feet, and, of course, in going by a boat of that kind you have to keep some distance from it to avoid the danger of collision. That situation has been remedied by forcing the Delaware & Lackawanna Railroad Co. to remove that old pier and build a slip or berthing space in which their boats now lie while being loaded with coal, so that they are entirely outside of that 200-foot channel. That relief to the situation is so marked, and the width provided there now is so much greater than that inside the harbor where all these boats passing this boat must go, where the boats lie up on both sides of the channel, at the docks, that the Engineer Department feels that some trial of that situation should be made before undertaking the large expense of widening the entrance, which would require removal of bulkheads or walls built on the other side.

Mr. Booher. Let me make a suggestion and see if it meets the chairman's approval: I do not expect we could get anything in this bill on this question, but when we finish the consideration of this bill why couldn't we have Col. Warren and the representatives of the shipping interests and Chamber of Commerce come down here and have a hearing and find out where we are for the purpose of next year? I think it is always good policy to give the local interests an opportunity to be heard, because it very frequently removes apparent cause for criticism.

Mr. Dempsey. They have very large commercial interests and they are both absolutely satisfied that they have been very badly treated, and they think they are unable to get any consideration, even the slightest consideration, from the local officer. They feel that he treats them with the most supreme indifference and prefers to slight them and treat them with contempt, if possible. That is a most general feeling among the business men of western New York as to the local officer.

Mr. Kennedy. If the condition is as you claim, what you want in this bill is a survey, isn't it? You have to get started that way and could save a year.

Mr. Dempsey. We have tried that way several times, and we have been treated, and our port has been treated, as if it was a small, unim-

portant port.

Col. Newcomer. I would like to explain, in that connection, that the secretary of the Buffalo Chamber of Commerce recently visited the office of the Chief of Engineers, and I found that the report on survey of Buffalo Harbor that was authorized by Congress, I think it

was about two years ago, had been considered by the Board of Engineers for Rivers and Harbors and was just about to be transmitted by the Chief of Engineers to the Secretary of War for submission to Congress. He said they had not been given an opportunity to present their views against the district officer's adverse recommendation on certain matters which they had asked. One of those was the widening of the harbor entrance. The report of the district engineer was favorable upon several of the points that were brought up. Upon his request that report has been held up, and I am now awaiting further information from the Chamber of Commerce at Buffalo. They will be given a full opportunity to present their case to the Board of Engineers for Rivers and Harbors before the report is transmitted to Congress. I think possibly it might be well to await that discussion, which is the normal procedure, before taking it up here.

Mr. Dempsey. Let me understand that. The Chamber of Commerce is to be given an opportunity to present what they deem are

their grievances to the Board of Engineers?

Col. Newcomer. To the Board of Engineers for Rivers and Harbors, which is the board of review passing on all of these projects.

Mr. Dempsey. May I be advised as to when and where that hearing

is to be?

Col. Newcomer. Certainly. We will be very glad to inform you. As a matter of fact, of course, the representations made by the Chamber of Commerce to the district officer are in the file of papers that came to the board, so that they were thoroughly familiar with what was asked for and the reasons advanced for it, and that was all under consideration before the board took action on the matter. But at the same time, the board is quite willing to give further opportunity for a hearing, if they desire to be heard.

The CHAIRMAN. I think, Mr. Dempsey, it might be well for you to communicate that to the Chamber of Commerce and ask that they be prepared to present their views fully to the Board of Engineers, in view of the statement just made by the colonel, because you want to exhaust your remedy before presenting the matter to the committee.

Mr. OSBORNE. Mr. Chairman, will that hearing before the Board

of Engineers be had before we get done with our work here?

The CHAIRMAN. It is not in condition for this committee to consider it, at any rate, and probably will not be at this session. What Mr. Dempsey wishes is a full opportunity for the people of the city of Buffalo to present their views, and it seems that opportunity is now open, based on an authorization for an examination and survey on which no final report has as yet been made.

We now come to the Montgomery, Ala., district, and the first item there for which an estimate is made is Apalachicola Bay, Fla., \$9,000 for maintenance. That is the only estimate for an appropriation in

that group. Are there any comments on that item?

Col. Newcomer. That is the amount required to keep the channel open. It is a place where the shoaling takes place very rapidly. It is at the mouth of the Apalachicola. That is the outlet for quite a river system, and while the commerce is not large the expenditure of this amount seems to be advisable.

The CHAIRMAN. The next item is Holmes River, Fla., \$2,000 for maintenance. In the same group is Blackwater River, Fla., \$5,000

for maintenance, and Pensacola Harbor, Fla., \$15,000 for maintenance

Col. Newcomer. The \$2,000 for the Holmes River simply represents the usual annual cost or maintenance and is needed for that purpose. The item of \$5,000 for the Blackwater River, Fla., I would suggest be stricken out; because, since that estimate was submitted, there was a storm which shoaled the channel so badly and the need was so urgent that an allotment was made of that amount from the fund available for emergency work. So that that item, I think, can be omitted. This is work that is ordinarily required every two or three years, and the amount already allotted will take care of it untilthe next bill is under consideration.

The \$15,000 for Pensacola Harbor is needed for maintenance. That is a project which costs very little, relatively, as compared

with the importance of the commerce.

The CHARMAN. Do you recall the minimum depth of the entrance to that harbor now, Colonel?

Col. Newcomer. It is a 30-foot project, and I think they have that depth.

The CHAIRMAN. That is maintained?

Col. Newcomer. Yes, sir.

The CHAIRMAN. Mobile (Ala.) district: The first item there is for Mobile Harbor, Ala., maintenance, \$160,000; further improvement, \$100,000. We will be glad to hear from you on that as to the

sufficiency of those amounts there.

Col. Newcomer. The item of \$160,000 is considered necessary in order to maintain the present project depth of 27 feet. We have there two and sometimes three dredges which can be used on that work, and we think it is advisable to keep those dredges employed throughout the year; and for that reason the additional \$100,000 is requested for work looking toward the increased depth of 30 feet that was authorized by the last Congress which will keep the existing plant employed. The new project provides for the purchase of additional dredges, but that is not proposed at this time.

The CHAIRMAN. For reasons that the committee understands—

the greatly increased cost of construction.

Mr. Gray. When will all the funds now available be exhausted, Colonel?

Col. Newcomer. Probably about the end of this fiscal year.

Mr. Gray. In other words, there will be nothing on hand after June 30 of this year.

Col. Newcomer. Substantially that; yes, sir.

Mr. Gray. Did not the storm down there do a great deal of damage, according to the reports which you had?

Col. Newcomer. We have not had any reports indicating any great

damage to the channel.

Mr. Gray. That is causing considerable shoaling, or there has been an immense amount of it; an unusual amount of it in the channel?

Col. Newcomer. We have had no reports about that.

Mr. Gray. That is the information I have. Col. Newcomer. That has not come to us.

Mr. Gray. Do you remember the original estimate and the initial appropriation proposed by the Board of Engineers? It was about 350,000, wasn't it?

Col. Newcomer. I think it was something in that neighborhood. As I say, that proposed an additional dredging plant, but this is not a favorable time for undertaking that. Of course, last year, when the project was adopted, no money was appropriated for beginning the work. It was only authorized that the money provided for maintenance could be expended also for additional improvement in case the money would extend to that work.

Mr. Gray. As a matter of fact, none of it was expended on the

new project?

Col. Newcomer. I think not.

Mr. Gray. That is my information, that there was no money at all spent on the 30-foot project, as adopted at that time.

Col. NEWCOMER. This amount, with the money now available.

would allow some expenditure of money on the new project.

Mr. Gray. Have you kept up with the recent developments in that locality?

Col. Newcomer. You mean with the shipbuilding, etc?

Mr. Gray. Yes.

Col. Newcomber. I am aware of that; yes.

Mr. Gray. You know about that?

Col. Newcomer. Yes.

The CHAIRMAN. It seems to me that the gist of the statement of Col. Newcomer lies in this, that the amount recommended here would be sufficient to keep the plant there in operation during the fiscal year ending June 30, 1919.

Mr. Gray. We want some of that 30-foot channel begun to be dug.

The CHAIRMAN. This \$100,000 will be applicable to that. Mr. Gray. It was before, but they did not start on it.

Col. Newcomer. You only had \$100,000 then, you know, altogether.

Mr. Gray. Yes; but they did not start before. Col. Newcomer. We are asking now for \$260,000.

The CHAIRMAN. The main reason for adopting the project in the last bill, as I recall, was that the maintenance work might be prosecuted with a view to the increased depth provided in the new project.

Mr. Booher. Colonel, I understand you to say that this \$160,000

for maintenance is necessary to expend in the coming year.

Col. Newcomer. Yes, sir; that is what we consider necessary for the maintenance of the 27-foot project; and the \$100,000 will allow for additional operation of the plant toward the 30-foot project.

Mr. Gray. Is not that a meager amount for a project of that kind? Col. Newcomer. It is sufficient to provide for the existing plant. Of course it is a meager amount, in a way, toward a million-dollar project; but that would involve larger expenditures for plant.

Mr. Gray. I understand that is to go for one year, that \$100,000.

Col. Newcomer. Yes, sir.

Mr. Gray. How many dredges will be at work?

Col. Newcomer. We will have two there, I think, and can have them constantly at work; and I think we have another that can be put there on the work.

Mr. Gray. It is just a question in my mind whether this \$100,000

will be sufficient to run this year, and up to next year.

Col. Newcomer. Yes; that is the estimated operating expense, including the \$160,000 for maintenance.

The CHAIRMAN. The next item is Gulfport Harbor and Ship Island Pass, Miss., for which an estimate of \$80,000 is made for further

improvement.

Col. Newcomer. While that item is placed under the head of "Further improvement," the note says it includes maintenance. As a matter of fact, it is nearly all maintenance. It requires in the neighborhood of from seventy to seventy-five thousand dollars to maintain the existing project depth.

Mr. Frear. The harbor channel is about 10 miles long, isn't it—

something like that?

Col. Newcomer. It is a very long channel across shoal water in the Mississippi Sound. The project provides for such increased depth as can be obtained by the operation of the Government plant. This \$80,000 is simply the estimated cost of operating the Government plant for the fiscal year.

Mr. Frear. Does this provide for increasing the depth?

Col. Newcomer. I think it may increase it slightly, but not very much. That would be required mainly for maintenance.

Mr. Frear. What is the depth there now?

Col. Newcomer. Substantially 19 feet is what they have already secured.

Mr. Frear. How much was built by the railroad originally, and

what was the original depth they acquired?

Col. Newcomer. They provided a 19-foot depth, under a certain agreement, you know, that they would receive a certain sum—which they claim was much less than the cost to them.

Mr. Frear. They had a project of 19 feet when they turned it

over to the Government?

Col. Newcomer. Yes, sir.

Mr. Switzer. What is the depth now?

Mr. Frear. They have increased the depth there slightly, haven't

thev?

Col. Newcomer. No; they have not substantially increased that amount. As a matter of fact, I think the depth reported on the 30th of June was about 17 feet. It had shoaled somewhat at that time. But 19 feet has been provided, and to that extent it would be maintenance. Anything beyond that would be further improvement.

These projects at Gulfport and Pascagoula, and also at Mobile, are rather singular from the fact that the boats can go out drawing more water than they actually have in the channel. The bottom is so soft that they can actually drag into the bottom to some extent—for a foot or two.

The CHAIRMAN. If that is necessary?

Col. Newcomer. Yes, sir; if that is necessary.

The CHAIRMAN. The maintenance of that channel is somewhat

expensive at Gulfport and Ship Island Pass.

Col. Newcomer. Oh, yes, it is; it requires substantially this amount. The Chairman. The next item is Pascagoula River, Miss., \$10,000 for maintenance. And in the same group is Biloxi Harbor, \$5,000 for maintenance.

Col. Newcomer. The Pascagoula River requires substantially that amount annually for snagging operations. The work on its tributaries, the Chickasahay and Leaf Rivers, has been practically aban-

doned. The Pascagoula has a sufficient amount of water, but that amount is necessary to clear away the snags. There is a substantial amount of lumber on that river.

Mr. Frear. They have a large number of boats building there? Col. Newcomer. That may be; I do not know about that. Oh, you mean down at Pascagoula Harbor?

Mr. Frear. Yes.

Col. Newcomer. That is not in the Pascagoula River project. I think that is the Dog River, where the boats are being built.

Mr. Frear. How far up the river does this extend?

Col. Newcomer. This goes up the river, I think, in the neighborhood of 80 miles, or so.

Mr. Frear. Is there any commerce up there that far?

Col. Newcomer. Oh, yes. Mr. Frear. What kind? Col. Newcomer. Timber. Mr. Frear. Timber entirely?

Col. Newcomer. Yes, sir.

Mr. Frear. Then the work performed by the Government is largely in digging out snags?

Col. Newcomer. Yes, sir; entirely.

Mr. Frear. It is entirely? Col. Newcomer. Yes, sir.

Mr. Frear. What do you say as to the advisability of the Government constantly digging out snags that are placed there by the mill dams?

Col. Newcomer. Oh, no; these are snags which largely come from the streams above—the Leaf and Chickasahay—which are both streams with rather friable banks. During the freshet period the banks cave and trees fall into the river, and the stream brings them down. I have no doubt we do occasionally get some logs which are lost from rafts, and things of that kind.

Mr. Frear. Each year I notice they take out a great many snags

and logs.

Col. Newcomer. Yes; they do. I understand that some private parties there are now recovering some of the logs lost in that part of the river.

Mr. Frear. Of course, the Government does not get any benefit from that.

Col. Newcomer. Oh, no.

Mr. Frear. But we keep digging out and removing the snags.

Col. Newcomer. We proposed here last year-

Mr. Dupré. In the Sabine River?

Col. Newcomer. Yes; in the Sabine River—that you make a provision that material of that kind—logs recovered by the Government—should become the property of the Government, to be sold to pay the expense of clearing the channel from obstructions. For instance, when wrecks occur, if they are abandoned, whatever is removed becomes the property of the Government, and we would like to have the same rule applied to logs.

Mr. Frear. What was the reason (I think one was urged by Mr.

Mann) that was abandoned?

Col. Newcomer. I do not recall.

The CHAIRMAN. I know there was objection to it. I know or think one of the objections to it was based upon the fact of the authority of Congress to do that.

Mr. FREAR. Yes; that is it, as I recollect it—a question of the authority resting in Congress to undertake the authorization of it.

Col. Newcomer. It seems to me Congress would have the right to declare anything of that kind an obstruction, just as it declares a wrecked barge or pier or anything of that kind to be an obstruction to be removed. And whatever is obtained in its removal becomes the property of the Government to help defray the expenses.

Mr. Frear. What becomes of the logs and deadheads that are taken

out by the Government and removed each year?

Col. Newcomer. Most of the material we remove, of course, is snags, stumps, and things of that kind, which are not usually in shape to be used as timber—I mean they are not worth much as timber. The snags are destroyed. The logs which are marked can, I suppose, be claimed by their owners.

Mr. Frear. We dredge the river out and give them the logs after

they are recovered?

Čol. Newcomer. If they claim them.

Mr. Frear. If they claim them.

Col. Newcomer. Because the local laws, I believe, give them the privilege of recovery.

Mr. Frear. That is a great object, it seems to me, for the local

people to have that work done by the Government each year.

Col. Newcomer. The logs form but a small part of the obstructions removed.

Mr. Dupré. They have no commercial value, have they—the snags?

Col. Newcomer. The snags do not, but the logs do.

Mr. Dupré. The logs do, of course.

Mr. Osborne. Is not the proportion of logs, of course, very small?

Mr. Frear. Have you ever looked it up?

Mr. OSBORNE. I lived down there for 12 years, and I have been on all of those rivers—the Pascagoula, Tchefuncta, and all those rivers—and I have traveled hundreds of miles over them. I never saw a log in the shape of a snag in my life that I remember.

Col. Newcomer. I think we only get those logs sometimes when they are caught on a bar, a shoal place, when they become waterlogged, and after becoming lodged in this way they become a source

of obstruction.

Mr. Frear. I might give some information on this. On page 2499 we find, on the Pascagoula River, "logs cut up or stumps leveled on bank"—of course that couples them together—811 on one river, 1,168 on another, making a total of 1,979; logs removed from drift piles, 48; logs removed from river, 375. That shows the proportion of logs

Mr. Osborne. That, Mr. Chairman, does not in any way controvert what I said, that I had never seen a saw log in the shape of a snag in my life that I remember of. Of course, they get them in those drifts, but not as a snag. A snag is a tree sticking up in the river, roots down, pointing down stream, and a steamer coming up stream runs

her bow into the snag.

Mr. Frear. This is headed "Snagging operations."

Mr. Switzer. They come out as snags.

Mr. FREAR. This is in the engineer's report and is headed "Snagging operations," and it speaks of logs removed by the Government and then turned over to the mill company without charge. I am just trying to get at the policy of the Government conducting business that way.

Mr. OSBORNE. I think the Government ought to have them.

Mr. Dempsex. The only question is whether there is enough in it; but certainly they ought not to turn them over to those people, because, as you say, it is just a reason for their carrying on their operations entirely different from the normal and regular way.

Col. Newcomer. While 375 logs were removed from the river, there were about 3,204 snags, or about ten times as many snags as logs.

The CHAIRMAN. I think these are the facts about logs which have a commercial value, that they are usually dropped from rafts and, as a rule, they are either nonfloatable or become nonfloatable, or else they sink to the bottom or go farther down until they meet some current action or where they meet some obstruction and are stopped,

generally near the outlet, as the colonel has explained.

And I think it would be advisable for the committee, when we come to consider new legislation, to consider whether we will not incorporate in the bill a provision similar to the one in the last bill, or something substantially similar, because the Government having control of navigation and removing these logs (that have a commercial value) for the purpose of improving the navigability of a stream, ought to have the benefit of whatever value they have in the market when they sell them. Of course in this particular instance the great cost is of snags, trees, and other material, which come from the banks when they erode, and which come down the river and obstruct the channel and therefore have to be removed. And as a rule they have very little or no commercial value.

Mr. Frear. The total number of obstructions removed last year by the engineers seems to have been 48,852 of various kinds. The year before, according to the record, it was 18,203. I am not sure whether that is on the same stream. But it appears the engineers are engaged practically all the time in removing obstructions. That is all you say

is there?

Col. Newcomer. Yes; that is all.

Mr. Frear. There is no dredging or anything of that kind. And under the head of logs and snags there were 1,127 logs removed from the river last year, as appears on page 2400 of the report for the previous year.

The CHARMAN. I would like to ask the colonel this question: We have a law making it unlawful for those that move rafts to drop logs in a navigable waterway, or, if they drop them, making it their duty to pick them up, which law does not seem to be generally enforced.

Col. Newcomer. I do not think it is a law exactly, Mr. Chairman, it is an office regulation. We have adopted regulations of that character on a number of streams. And there may also be a special basis of law for it. But I know we have regulations in some cases on certain canals and waterways. For instance, I know the Secretary of War has approved regulations covering that matter. And persons violating them are subject to prosecution if they can be detected.

The CHAIRMAN. I will not take the time to look it up now, but my recollection is distinct there is such a law.

Col. Newcomer. It may be in a law as well as regulation.

The CHAIRMAN. And I think if the specific attention of the district engineers in those localities where the logs are dropped were called to the matter, where there is no effort made to recover them, that would stop a good many of the obstructions of that kind.

Mr. Switzer. Where the logs have been cut and the river rises and they drift into the stream, how are you going to prosecute there? The CHAIRMAN. There are some instances of that kind, but, as a

rule, they have been dropped from rafts.

Mr. Frear. It makes a very simple proposition to have the Government follow those up if profitable to do so.

The CHAIRMAN. Have you any comment to make on the Biloxi Harbor?

Col. Newcomer. No, sir; the funds on hand are practically exhausted, and we expect that \$5,000 will be necessary for restoring the channel at Biloxi Harbor.

The CHAIRMAN. We now come to the New Orleans district, and the first item there is passes of the Mississippi River. There is an estimate of appropriation for the Southwest Pass for further improvement of \$1,150,000 and an item of \$250,000 for the South Pass, which is for maintenance. Colonel, what have you to say about the passes and the sufficiency of the appropriation to maintain the chan-

nel depth.

Col. Newcomer. The amount estimated for further improvement of Southwest Pass, as given here, was considered to be the amount that could be expended to advantage in the next fiscal year or until another bill is passed at the next session of Congress. You will observe that there was a considerable sum on hand at the beginning of the fiscal year on account of the appropriation made by the last Mr. Sanders, you will recall, suggested that the entire balance required to complete, of about \$2,500,000, be appropriated at this time. We of course would have no objection to having that much money and would spend it as rapidly as we could under the conditions that obtain. But the amount we considered necessary and that we ought to have is at least this \$1,150,000. The \$250,000 for maintenance of South Pass is in addition to the permanent annual appropriation of \$100,000 for the maintenance of that pass. That permanent annual appropriation was authorized some years ago and is quite inadequate under present conditions. The flow through South Pass has been considerably enlarged. And not only is there necessity for restricting the flow through Pass a Loutre, as already indicated by repairing the sill there and strengthening that, but also we need additional sills at the entrance of South Pass so as to reduce the flow through it and throw more water through Southwest Pass.

The CHAIRMAN. Would this appropriation for the Southwest Pass be available for those repairs at Pass a Loutre?

Col. Newcomer. Yes, sir. We consider that work required there as a part of the improvement at Southwest Pass, because it is to control the flow to that point.

The CHAIRMAN. Colonel, I will ask you this question: I do not nk there is any disposition on the part of the committee to restrict any appropriation that may be necessary for the passes; but it appears that 90 per cent or more of the commerce up to this time uses

Col. Newcomer. That is true; yes, sir.

The CHAIRMAN. And it is of greater depth?

Col. Newcomer. Yes, sir.

The CHAIRMAN. Now, in view of that and the further fact that the Southwest Pass is still under construction, would it be advisable to reduce the appropriation for the Southwest Pass to any extent on

account of war conditions; or do you think that would react?

Col. Newcomer. I think it is very desirable indeed to have that amount, because South Pass itself is in a rather critical condition. The jetties are suffering considerably by the encroachment of the channel, so that they feel very uneasy about the security, or permanency of the channel through South Pass. It is important for that reason to complete the Southwest Pass as promptly as we can.

The CHAIRMAN. There is a break in the jetties on the east side,

isn't there?

Col. Newcomer. Yes, sir. And we feel very uneasy about that situation. We probably can maintain them for several years, but in view of the expenditures such as we are now undertaking, it is very desirable to expedite the other work as much as we can.

Mr. Dupré. If that is the case, why is it not being expedited?

Col. Newcomer. It is being expedited.

Mr. Dupré. Have not bids been rejected recently, Colonel, for Southwest Pass because the department thought they were excessive?

Col. Newcomer. That is very true. Bids for bulkhead construction in the Southwest Pass were rejected. We are trying, of course, to prosecute the work with due regard to economy. That gives a perplexing situation sometimes, as to whether the consideration of economy or the other should prevail. We are handling that situation, of course, as best we can.

Mr. Dupré. I am not criticizing the department, but I was wondering if you gentlemen had any idea there would be any reduction in those bids in a comparatively short time—in the next five years, we

Col. Newcomer. There has already been a proposal to reduce the

bid to a certain extent.

Mr. Dupré. Is that appealing to the engineering office in any sub-

stantial way?

Col. Newcomer. The reduction is not large, about 6 per cent, and on that, of course, we had to get the views of the district engineer as to the propriety of accepting it. While we consider it desirable to expedite the work, we of course do not consider it advisable to undertake the work regardless of expense.

Mr. Dupré. Can you give me any information as to the amount of

this bid—roughly?

Col. Newcomer. I think it is about \$68 per linear foot.

Mr. Dupré. I mean in round numbers.

Col. Newcomer. The amount involved I do not now recall. It was a number of hundred thousand dollars involved, I remember.

Mr. Dupré. It would make considerable encroachment upon the sum reported here as being available from the last bill, would it?

Col. Newcomer. Oh, yes.

Mr. Dupré. In other words, you need this million dollars more?

Col. Newcomer. We consider that at least should be provided, and that sum represented our judgment as to the amount it would be well to appropriate at this time.

Mr. DUPRÉ. What did the district engineer recommend? Col. Newcomer. He recommended a little over \$2,000,000.

Mr. Durké. Which would have provided for the completion of the entire project?

Col. Newcomer. No; it would not quite. As a matter of fact, his

recommendation was \$2,145,000.

Mr. Dupré. That would have left \$300,000.

Col. Newcomer. \$2,425,000 is the total estimate for completion; ves. sir.

Mr. Dupré. Including \$1,000,000 that is proposed to be appropri-

ated here?

Col. Newcomer. That is right.

Mr. Dupré. That would be about \$1,300,000 more?

Col. Newcomer. That is right. The amount of money on hand there was so large that, considering the rate of the expenditures they have been able to make up to date, we felt this was all they could properly expend to advantage.

Mr. Frear. Do you expect to use the dredge under the control of the Mississippi River Commission on this work, or just at the upper

end of the river?

Col. Newcomer. They are not Mississippi River dredges; it is the revetment plant we want to use on this work.

Mr. Frear. That will not be used at the Southwest Pass?

Col. Newcomer. Yes; that will be used under the Southwest Pass funds, because that is where it is intended to control the flow to Southwest Pass. In other words, this Pass a Loutre is at the head of the Southwest Pass.

The CHAIRMAN. And it requires the equipment which the Mississippi River Commission has on hand and which it is necessary for them to have in the performance of their work, and which is a very expensive class of plant and a plant which is not possessed by the New Orleans district.

Col. Newcomer. I may say this work has its own dredges, but has no revetment or mattress plant. That is what we want to get from

the Mississippi River Commission.

The CHARMAN. I made inquiry as to whether this appropriation might be reduced or not, because it is quite a large amount, and inquiry might be made in the House as to the large sum appropriated here for the Southwest Pass.

Mr. Dupré. I thought at first your tongue had slipped and you

meant shouldn't it be increased.

The CHAIRMAN. I ask a good many of these questions in order to get them in the record, anticipating questions that will be asked on the floor of the House.

STATEMENT OF COL. HENRY C. NEWCOMER, ASSISTANT TO THE CHIEF OF ENGINEERS, UNITED STATES ARMY, JANUARY 4, 1918, FOLLOWING THE HEARING HELD ON THAT DATE ON PASSES OF THE MISSISSIPPI RIVER.

Col. Newcomer. The work at Pass a Loutre, to which Mr. Sanders refers, and at the head of the South Pass, is all provided for by money in hand. It is only a question of getting the plant to do the work.

The situation which Mr. Sanders presented to you was brought to the attention of the Chief of Engineers early in December, I think it was, and upon learning the attitude of the commission the papers were sent to the district engineer at New Orleans, who has charge of the improvement of the Passes, with instructions to report upon the situation and send it through the division engineer and get his comments and then through the district officer, who has the plant, to the Mississippi River Commission, or rather to Gen. Bixby, the president of the commission, and indicated the view of the office of the Chief of Engineers that the use of that plant should be determined, not by the appropriation to which it belongs, but by the paramount public necessity. In other words, if this Pass work is the more important, the equipment should be diverted. It was stated that was the way in which the office of the Chief of Engineers would look upon it.

We have not yet received that report, so that we do not know what attitude the commission will take. In case of urgency, of course, time is really a considerable element, and it is hard to get prompt mail transmission under present conditions of rail transportation. Moreover, the report has to go through so many people, and while an early response ought to be had, you must remember it will take time; but I do not think the Chief's office would hesitate to

divert that plant, if necessary.

Mr. Frear. Have you the authority to do so?

Col. Newcomer. I think so.

Mr. Frear. If not, the suggestion of Mr. Sanders might be important at this time, that the committee also express its desire to have it used in that way because this work is one of great emergency.

have it used in that way, because this work is one of great emergency. Col. Newcomer. Yes. Of course, the Chief of Engineers would not desire to take action without hearing from the different parties concerned, because he does not know precisely upon what work this plant is now engaged. It may be that where they have it the work is very urgent now, as, for instance, on bank revetment to protect levees that are threatened by caving of banks. He would only act upon the whole presentation, but there is authority, I think, lodged in the Chief of Engineers to commandeer that plant.

Mr. Frear. You do not think it necessary to have the committee

take any action?

Col. Newcomer. I hardly thing it necessary at all, in that respect. The Chairman. Before the colonel leaves the Passes, I think, if it meets the approval of the committee, I will make this statement, which I think will be approved by all the members who were there—that from the standpoint of laymen, not as engineers, we were impressed

with the importance of it, and that it ought to be done before the next flood waters in the Mississippi. I personally was so much impressed with it-I think I discussed it with some of the members, maybe with you—that I wrote a letter to Gen. Bixby and the Mississippi River Commission telling them what my impression was and I thought the impression of this committee, that they ought to cooperate in furnishing their equipment. I never received any reply. But as Mr. Sanders says, that is the entrance to the Mississippi Valley, so far as water transportation is concerned, and it is very important, undoubtedly, to see that nothing happens to interfere with it.

Mr. Frear. Is the Mississippi River Commission under the Engi-

neers Department in any way, Colonel?

The CHAIRMAN. Oh, yes.

Mr. Frear. They are acting upon the orders of the Chief of Engi-

Col. Newcomer. The flood-control act says the work should be carried out in accordance with the plans of the Mississippi River Commission, as approved by the Chief of Engineers. Therefore, it makes it all subject to his supervisory control. As a matter of fact, we have had very little occasion to modify the action taken by the Mississippi River Commission, because they are satisfactorily handling the work. The only case, so far as I know, that has come up has been at Memphis, where the Chief of Engineers rather insisted upon providing more liberally than they had themselves been willing to do.

Mr. Frear. Heretofore has the question ever come up of any conflict between the Mississippi River Commission and the Chief of

Engineers about the Mississippi River Passes?

Col. Newcomer. No, sir. There is not any conflict now about the appropriation; it is about the plant. They have the money now to use the plant on their own work and want to use it, and say the plant should not be used under any other appropriation until their own money has been exhausted. Hitherto whenever the work was of such emergency as required the use of the plant, I understood it always had permitted its use. It may be that was simply because they did not have then funds of their own with which to do the work; I could not tell about that. But this is the first time there has been lack of willingness on their part to give the plant; that is, as far as I know.

The other question about the Passes that Mr. Sanders brought up, with reference to the early completion of the Southwest Pass-that involves the construction of the inner jetties, as he mentioned. And the plan now is to build bulkheads which will narrow the waterway

sufficiently to confine the flow.

The CHAIRMAN. Some of which have already been constructed?

Col. Newcomer. Some of which have already been partly constructed; and also to build spur dikes which run out from the main jetties to the line of inner jetties.

Mr. Frear. What proportion would you say has been completed;

about a third?

Col. Newcomer. Probably about a fourth has been completed; 1 could not say more closely than that. The money provided in August was intended to be applied partly to the continuation of that bulkhead work and also to the building of spur dikes. It happened early

December, I think it was, that bids were received for that bulk-

head at very much increased prices. They have a contract now, for instance, which, I think, runs about \$38 a foot, and the new bids were about \$66 or \$68.

Mr. Frear. Double?

Col. Newcomer. Pretty nearly double what they were before. They figured that due allowance for the increase in the cost, the increased price of labor and material, etc., would place it somewhere in the fifties, say about \$54 or \$55 a foot. Now, as I say, in addition to the bulkheads, which are inner longitudinal jetties parallel to the old, we propose building the spur dikes and have a plant of our own which can be used on the construction of the spur dikes, which will partially accomplish the same purpose as the inner jetties.

Mr. Frear. A Government plant at the jetties is now doing the

dredging?

Col. Newcomer. Yes.

Mr. Frear. And the contract work of building the jetties is private? Col. Newcomer. Yes; for the jetties; but not for the spur dikes. We have a plant for that but not for the longitudinal jetties.

Mr. Frear. How many contractors are working on that now, gen-

erally speaking?

Col. Newcomer. I think there is one contractor building the bulk-heads there, and one for furnishing the stone. That is my impression.

Mr. Frear. And it is those contracts which you can get renewed

only at a larger price?

Col. Newcomer. Yes; that is the situation up to the present moment. We just got a telegram this morning from a contractor offering to reduce his price to a certain amount providing certain concessions be made, but that, of course, must be investigated before reaching a decision.

Mr. Frear. What was his name? Col. Newcomer. I do not recall.

Mr. FREAR. I was wondering if he was not with us on the trip.

Col. Newcomer. I do not recall. The amount required, according to the original estimates to be appropriated for the completion of the project is given on page 25 of your estimates.

Mr. Frear. I suppose that would not be of much value, in view

of the increased costs.

Col. Newcomer. It is very doubtful whether that will complete it. The amount estimated to complete was \$2,425,000. The amount we included in the annual report as an estimate for additional work for one year is substantially one-half of that—\$1,150,000.

Mr. Kennedy. How long would it take to complete that project if all the money necessary was available and you could get the plants

you have there.

Col. Newcomer. You mean if we had all the money?

Mr. Kennedy. Yes; had all you needed and had the plants continually working on the project. How long would it take to complete it?

Col. Newcomer. I think it would take about three years.

Mr. Frear. What amount of money have you on hand now for

these projects?

Col. Newcomer. The amount available there is \$2,000,000. That is, at the first of the year. Of course, that was one of the elements that led us, in the office of the Chief of Engineers, to reduce the estimate

coming in from the office of the district engineer—to reduce this amount to \$1,150,000—that fact, together with the fact that the appropriation of the succeeding session of Congress would be available the 4th of March, 1919. We felt that this additional amount estimated for here would probably provide all that we could spend to advantage in the intervening time.

Mr. Frear. You speak about this additional amount. How much

have you included in this estimate?

Col. Newcomer. \$1,150,000.

Mr. Kennedy. Is there any advantage of a continuing contract in a case of that kind?

Col. Newcomer. Yes. There may be if the conditions, of course, are favorable for making a continuing contract. If this had all been placed under a continuing contract when we negotiated the contract about two years ago, it would have been upon very favorable terms and conditions to the Government, but the contractor would probably have been broken by this time.

Mr. Kennedy. Yes; I realize that.

Col. Newcomer. But just now a continuing contract for its completion would be a rather questionable proposition.

Mr. Kennedy. You think it would not be to the advantage of the

Government to do it?

Mr. OSBORNE. This has reference entirely to the Southwest Pass?

Col. Newcomer. Yes.

Mr. OSBORNE. I did not go with you on that trip, but I am very familiar with the mouth of the Mississippi River from being there for many years; and that work at South Pass seems to me to be of very great importance. The formation of those mud lumps, which is constantly going on, will cork them up. And take the whole Mississippi River, it is like a big bottle and that is the entrance, and if you choke up the entrance it does not matter what you do up above. The entrance must be kept clear.

The CHAIRMAN. That is emergency work which Col. Newcomer

spoke about.

Mr. Osborne. Yes; at Pass a Loutre.

The CHAIRMAN. We will now proceed to the hearings on the estimates.

## HEARINGS OF JANUARY 8, 1918—Continued.

The CHAIRMAN. Still continuing Louisiana, the New Orleans district, there is an item for the Calcasieu River and Pass, an item of \$5,000 for maintenance.

Col. Newcomer. That is required for maintenance, particularly in Calcasieu Lake, where the channel is subject to shoaling continually, and we need that amount to restore it. It is substantially the same amount we have available for the present year. We need that amount for next year.

The CHAIRMAN. The next item is for removing water hyacinths in

Louisiana, \$20,000.

Mr. Dupré That includes the States of Alabama, Mississippi, and

Texas, as well, does it not?

Col. Newcomer. Yes, sir. It is mainly in Louisiana, of course. These waterways are the ones that are particularly affected by water acinths, and that is the amount we require.

Mr. Dupré. I know the fund is applicable for use in the four States under the law, or at least it was in the previous bill. I know Mr. Harrison slipped in Mississippi one year.

Col. Newcomer. I know it is in one bill, but this reads "Louisiana"

here.

The CHAIRMAN. How does that item read in the last bill, Mr. McGann?

The Clerk. Alabama, Mississippi, Louisiana, and Texas.

The CHAIRMAN. What was the amount?

Col. Newcomer. \$20,000.

The CHAIRMAN. That verifies Mr. Dupré's statement, Colonel.

Col. Newcomer. Yes, sir.

The CHAIRMAN. There is local cooperation, is there not, in the

removal of these water hyacinths?

Col. Newcomer. Yes, sir. The localities assist, as I understand, by patrolling the streams more or less and keeping the plant in motion.

The CHAIRMAN. That matter of local cooperation is set forth at the bottom of page 946 and the top of page 947.

Mr. Dupré. And they look after the booms, too?

Col. Newcomer. Yes, sir.

The CHAIRMAN. Galveston district. The first item is Galveston Channel, Tex., for maintenance, \$100,000; for further improvement, \$200,000.

Will you explain the character of maintenance and also the purpose for which the \$200,000 for further improvement is to be used?

Col. Newcomer. Galveston Channel is the channel in the interior harbor, and experience shows that we need about this sum of \$100,000 to operate our dredges and maintain the project depth of 30 feet.

The \$200,000 for further improvement is for the extension of the sea wall, which was authorized in 1916. That law required certain local cooperation, which has now been effected, so that the work is proceeding. The locality is to expend between six and seven hundred thousand dollars, completing the first portion of the extension, and the Government is then to extend the wall from there over to the military reservation, and this amount that we have estimated here—\$200,000—is the amount we feel can be expended to advantage in the next fiscal year.

The CHAIRMAN. What about the proposition for the increased

depth above 30 feet over the bar?

Col. Newcomer. There is a favorable recommendation now before Congress for providing a depth of 35 feet over the bar, which, by the way, I think involves no additional appropriation. The depth of 30 feet was secured a number of years ago, and, in fact, the depth is now about between 32 and 33 feet. The channel maintains itself with practically no dredging except sometimes dredging has been required to improve the location of the channel. The channel now is in a much better location than formerly, and, as I say, is something over 30 feet deep in depth, and it looks as though a 35-foot depth could be provided at a very moderate expense, and recommendation was made to authorize the use of the available funds to provide the 35-foot depth and maintain it for two years to see whether or not the expense of maintenance would be large. That 35-foot channel

would extend a mile or more beyond the jetties, and the question is how that portion of the channel out there would maintain itself.

Mr. Dupré. You say there are funds on hand available for that? Col. Newcomer. Yes. You see the first item—Galveston Harbor, Tex.—there is \$364,000 on hand. The larger part of that is for repairing the jetties, and there are sufficient funds in that to also dig to 35 feet if it is authorized by Congress.

Mr. Kennedy. What depth have they? Col. Newcomer. Thirty feet, project depth; actually over 32 feet. Mr. Dupré. You mean if authorized by Congress in this bill.

Col. Newcomer. Whenever Congress authorizes it.

Mr. Dupré. There is a report before Congress from the Chief of Engineers?

Col. Newcomer. Oh, yes.

The CHAIRMAN. In connection with that I will say the commercial interests of Galveston are exceedingly anxious to have that authorized and I have seen their representative, who wants to make a statement before the committee before we finally pass on the bill. The new project provides for this new 35-foot channel, and for which it is believed no additional appropriation is necessary and it is not proposed to make any additional appropriation for it, as they report the amount on hand will be sufficient to secure that increased depth. The estimated cost of that additional depth, as I remember, is placed at only \$65,000 which it is believed can be spared from the available amount on hand.

Mr. Kennedy. What I had in mind was whether it is necessary to provide 35 feet outside, at the bar, when they have only 30 feet inside.

Col. Newcomer. That is the entrance, you know, and of course that is exposed, and the boats passing in there, and going out over the bar, are more or less subject to the waves caused by storms.

Mr. Kennedy. You say you have 32 feet out there now?

Col. Newcomer. Between 32 and 33 feet.

The CHAIRMAN. It is a bar, and it is not unusual at a port to provide a greater depth at the bar, on account of storm and wave action than in the channel leading up to the port, of course. The project we adopted for Boston provided for a greater depth over the bar, for the same reason.

Col. Newcomer. There is one point at the mouth of the Columbia River, you know, where there is 40 feet on the bar and 30 feet inside.

Mr. Kennedy. Yes; that is true.

Col. Newcomer. There is a very heavy wave action there.

See Appendix A, page 174—a telegram from the president of the Galveston Wharf Company, in regard to ownership and operation

of its property.)

The CHAIRMAN. Next is the Dallas district: The Sabine-Neches Canal, including the Sabine River to Orange and Neches River to Beaumont, \$20,000 for maintenance. That is the only estimate of ap-

propriation in that group.

Col. Newcomer. That is for the maintenance of the section of the canal leading up to Orange and Beaumont on the two rivers, which the Government is under obligation to maintain. The other sections represented by the two rivers here are to be maintained by the local interests for a certain period.

Mr. Kennedy. About what is the average amount required there

r maintenance, Colonel?

Col. Newcomer. Substantially this amount annually, between \$20,-000 and \$25,000

Mr. Durré. There has been a rather remarkable development in that Beaumont section?

Col. Newcomer. Yes.

The Chairman. The members of the committee who visited that section will recall the section where this money is to be expended.

The next item is for Cypress Bayou, and waterway between Jefferson, Tex., and Shreveport, La. That is the only estimate for that

group, \$5,000 for maintenance.

Col. Newcomer. That represents substantially the annual cost of that waterway. It is a detached waterway. A dam has been built on Lake Caddo which separates this from its outlet to the Red River, and on this waterway there is a substantial movement of traffic to the railroad at Jefferson.

(Thereupon, at noon, the committee adjourned to Wednesday, Jan-

uary 9, 1918, at 10.30 o'clock a. m.)

## COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Washington, D. C., January 9, 1918.

The committee met at 11 o'clock a. m. and proceeded with the hearing on the estimates, Hon. John H. Small (chairman) presiding.

The CHAIRMAN. Gentlemen, we will proceed now with the hearing

on the estimates, page 30 of the committee book.

The first is the Vicksburg, Miss., district, and the first item for which an estimate of appropriation is made is the Red River below Fulton, Ark., \$50,000. And in the same group are the Ouachita and Black Rivers, Ark. and La., \$20,000 for maintenance and \$100,000 for further improvement.

Mr. Booher. Is that for further improvement on the Ouachita or

Black River?

Col. Newcomer. The Ouachita. The \$50,000 on the Red River is simply carrying out the plan that was adopted two years ago of providing a sum sufficient to snag the river thoroughly up to Shreveport, in view of the proposition that was made by the local interests there to put on a barge line and give them an opportunity to try out navigation under such a plan. The funds on hand with this amount would be sufficient to provide for that work for this and the next fiscal years. The estimated cost is \$55,000 a year. Part of the funds on hand are funds that are pledged for levee work, so that we have substantially \$60,000 on hand for this work this year, and we ask for \$50,000 more to provide for the two years' operation.

Mr. Frear. What do you think about the progress that has been made on the Red River and the desirability or necessity of this ap-

propriation of \$50,000 at this time?

Col. Newcomer. The progress made has not been great.

Mr. Frear. You had \$70,000 there on hand?

Col. Newcomer. Yes, sir.

Mr. Frear. And you are asking for \$50,000 more?

Col. Newcomer. Yes, sir.

Mr. Frear. The commerce reaches 43,000 tons, but 21,000 and some odd tons is timber that was hauled by the owners a few miles, and about 11,000 or 12,000 more in staves hauled a short distance. That takes the larger part of the commerce. Is there much commerce on the river?

Col. Newcomer. Very little. As I say, it is not satisfactory.

Mr. Frear. All the commerce is carried a distance of 35 miles. The Red River is how long?

Col. Newcomer. Over 400 miles.

Mr. Frear. It is all uniformly carried, according to the Engineer's Report, on page 3626, a distance of 35 miles. Do you think, after having spent \$2,800,000 on this project, and with \$70,000 now on hand, that it is necessary for the Government to advance \$50,000 more at

this time for the improvement of this 400 miles of river?

Col. Newcomer. The only ground on which it is recommended is that these people pledged themselves to contribute the capital to build barges and establish a barge transportation to Shreveport. We were to keep the river open sufficiently to let them do that. They have taken some steps to do that, although they have not proceeded as rapidly as they should in the matter. I question very much whether it will be a successful experiment; but, at the same time, that arrangement was made, and Congress entered upon it, and I think it is probably as well to carry it out.

I might state this, that there will be, I think necessarily, certain expenditures on the Red River, even if this present experiment is not successful. It is necessary to keep the stream open if they want to prevent its forming rafts, as it did in former times, so as to keep the river from being filled entirely and spreading over the surrounding country; in other words, to keep the stream open as a watercourse certain snagging is necessary. That would cost \$25,000 or

\$30,000 a year.

Mr. Frear. What distance is it necessary to keep the stream open—for the full 400 miles?

Col. Newcomer. Oh, yes, sir; further than that. Mr. Frear. This 25 miles' carriage of commerce, which is uniform—how did it come about that every one of these 20 or 30 items is hauled just 35 miles?

Col. Newcomer. I could not explain that.

Mr. Frear. I was wondering whether there was any particular part of the river where this commerce was carried on.

Col. Newcomer. I think it is scattered along the river, but mainly

on the lower part. They give there the average distance.

Mr. Frear. It shows they have carelessly prepared these estimates, if that is the basis of it, unless it was carried between certain points, because if the items were going to different points it would be impossible for all of them to be carried for an average distance of 35 miles. It would be a mathematical impossibility.

Col. Newcomer. It does not look reasonable; I admit that. But I think that the commerce, of course, is mainly on the lower part of the river at Alexandria and vicinity and points below that. There

is a little commerce to higher points, but very little.

Mr. Frear. They have 16 barges that they mention; are those

running there?

Col. Newcomer. I think that is on the lower river; they do not have the barge line in operation which they promised to put in eration.

Mr. Frear. That is registered on page 2626 as being of use, isn't it? Col. Newcomer. Most of the traffic, you will understand, on those rivers aside from rafting is in barges, but the particular barge line which it was expected would be made possible by this work, up to Shreveport, has not been organized and has not been put in operation.

Mr. FREAR. How much will you use during the coming year on

this project?

Col. Newcomer. If you will notice in the annual report, page 1050, for each improvement we give a financial summary, and in that financial summary we give the expenditures for the past five years, both for new work and for maintenance. In this particular instance the expenditures reported for this year are \$14,000 and for the preceding year \$46,000. The estimated cost of this work to keep the channel open-of course, we have not done quite all the work that would be necessary if the boats were moving, because they are not now actually in operation, but the estimated expense of keeping the channel clear up to Shreveport is \$55,000 a year. We have substantially \$60,000 on hand, and \$50,000 added to that would make \$110,000, the amount required for two years' operation. We may get along with somewhat less than that, and if the boats do not operate probably will, but we thought we ought to have the funds on hand so that the Government could do its work and they could not claim it was through a lack of Government assistance that the experiment failed. It seems to me it is probably the last experiment that will be made for some time to come for fostering navigation on the Red River.

Mr. Frear. You mean that this will be the last appropriation you

think will ever be made of the kind?

Col. Newcomer. I think that is probably the case, unless this project is more successful than I anticipate. We will probably require no further appropriation except the appropriation simply to keep the river from forming rifts.

The CHAIRMAN. I call attention to the paragraph on page 1050 of the annual report entitled "Recommended modifications of project,"

and I will read from it:

March 24, 1916, the Chief of Engineers recommended discontinuance of work under the existing project and the prosecution only of work necessary to prevent the formation of rafts above Shreveport and of snagging and removal of obstructions below Shreveport for a period of three years, at an estimated cost of \$55,000 annually, at the expiration of which period reports should be made to determine the advisability of continuing, modifying, or abandoning the project, the work below Shreveport being conditionally recommended.

I think we have already made one appropriation under that recom-

mendation, and this would be the second, would it not?

Col. Newcomer. No; we have made two. This will be the third appropriation. We made one in 1916 and one in 1917, and this is the third one. At the end of the third year it is expected that a further

report on the situation will be submitted.

Mr. Frear. Colonel, in comparing the commerce in the 1916 and 1917 reports, it appears in each case, for instance in 1916, that 4,851 tons of miscellaneous commerce, valued at \$727,000, were carried 35 miles. In the 1917 report—1916—it shows that there was 3,248 tons of miscellaneous commerce, valued at \$584,000, carried 35 miles—the same distance. What is the character of that commerce; do you

know?—because that is one of the large items that makes up the total valuation.

Col. Newcomer. What page is it?

Mr. Frear. Page 2626.

Col. Newcomer. I presume from the description of that—it says 43,310 packages—that simply means it is part of the package freight carried by packet boats, or possibly by small barges and small gasoline boats, from one place to another.

Mr. FREAR. They have carried packages above, in the same list, in both years, and that is under the heading of "Provisions." I notice, however, they do not carry merchandise, which is usually included

in that.

Col. Newcomer. This would be the same as the ordinary merchandise item.

Mr. Booher. If you will look near the top you will see where 64,685 packages were carried. That shows it to have been provisions. That is evidently all sorts of packages, and there are so many of the different kinds they could not class them separately but just put them in here as miscellaneous; and the packages at the top are classed as provisions.

Mr. Frear. You say, Colonel, you think this year will be the last recommendation for that, unless there is something developed from

this barge line?

Col. Newcomer. Yes, sir. You will recall the discussion—

Mr. Frear. I remember the discussion before.

Col. Newcomer. Yes. This Red River, of course, is one that has been very much discussed. The general attitude of the Engineer Department, for some time in the past, has been very much averse to the expenditure of money upon this stream for general commercial purposes, because there is so little commerce. However, the Chief of Engineers, a few years ago, Gen. Bixby. did recommend starting to improve the Red River on rather an extensive scale, for the control not only of the channel but the protection of adjoining lands. You know, they can only protect that land by levee construction, and, of course, levees on an unstable stream are a pretty precarious protection. You need bank revetment. But that is really a method of land protection.

Mr. Osborne. Mr. Chairman, may I ask Mr. Dupré—he is familiar with these conditions—what is the reason the Red River does not carry more freight. It used to carry lots of freight. Do the rail-

roads carry it cheaper now?

Mr. Dupré. I do not know, Captain.

Mr. Osborne. It seems a strange thing, because it is a good natural

highway for commerce. I should think it would be cheaper.

Col. Newcomer. I think I can explain that, Capt. Osborne. The stream actually is not a good stream; that is the trouble. It does not have enough water during a great part of the year when they need the tonnage carried. In former times when water transportation was depended upon very largely they had to accommodate themselves to moving the traffic when they had the proper stage of water; and dealers then would get supplies which would carry them through for a year. Now they do not work on that basis; they work on a month month basis. They order supplies in small quantities and expect ret them in a few days. If they will go back to the old method of

accommodating themselves to the natural conditions they could, of

course, use the Red River extensively.

As a matter of fact, I might state this also: That rates that obtained on the Red River were very high in olden times, navigation was always more or less precarious. It is a flashy stream, and the water runs off very quickly. The consequence was a good many losses of steamboats and difficulties of that kind. Still, in spite of all those difficulties, it is capable of carrying commerce, but at a high cost. I question very much whether it is economically possible to carry a commerce on the Red River in competition with the railways, except on the lower portion where the depths are naturally favorable.

Mr. OSBORNE. I was familiar with the Red River 50 years ago, and there used to be a very heavy commerce on the Red River, and steamboats were arriving at and leaving from New Orleans for many Red River points. I presume they carried 10 times as much commerce

then as they do now.

Mr. Kennedy. Is not that true of all rivers?

Col. Newcomer. That is true, you might say, of the Mississippi River itself, really. There it is not due to any lack of channel, but to other conditions. We have not gotten a very satisfactory reason why there is not more commerce carried on the Mississippi, which has a good channel.

Mr. Frear. One of the most remarkable statements ever made by the engineers appears in a Red River report, as I now recollect, in which it appears that a great amount of coal which can be mined would be carried on the Red River. Possibly the colonel remembers that. That was set forth in one of the hearings.

Col. Newcomer. That was said of the Arkansas.

Mr. Frear. The remarkable statement was made, I remember, that many million tons would be available. But as a matter of fact, I think they carried about 12 tons last year, or possibly a very few tons on a 12-mile haul.

Mr. Kennedy. That is on the Big Sandy.

Mr. Frear. Oh, no; the Big Sandy is where they carried 12 or 13 tons for Government use.

The CHARMAN. Did you have any further comments on the Ouachita and Black Rivers, where there is an estimate of \$20,000 for

maintenance and \$10,000 for further improvement?

Col. Newcomer. The \$20,000 is substantially the usual annual item for maintenance by open-channel work. You recall that there we are building some locks and dams. The three lower ones of the system were completed, and two other detached ones are completed. Most of the commerce there takes place during the freshet period, and in order to accommodate that commerce the stream has to be maintained, and \$20,000 is for open-channel work.

The CHAIRMAN. That is the Ouachita?

Col. Newcomer. Yes, sir. The \$100,000 estimated for further improvement is for continuing work on Dam No. 5. You recall, last year Congress authorized the diversion of funds that had been appropriated for Lock and Dam No. 7, Ouachita River, to the construction of Lock and Dam No. 5. Nos. 2, 3, and 4 had been completed. No. 1 has been omitted as no longer required, on account of change of location of the others. It was thought advisable to put in No. 5 instead of No. 7 and that change was authorized and has

been made; and in order to continue the work on No. 5, which should be completed as soon as possible, now it is undertaken, so as to fill that gap between 4 and 6, this additional \$100,000 is needed.

Mr. Kennedy. Is it going to be necessary to build all those locks and dams before we can determine whether there is any substantial

commerce on this stream?

Col. Newcomer. The department, as you recall, has recommended or did recommend that further lock and dam construction be discontinued.

Mr. Kennedy. That was above a certain point?

Col. Newcomer. No, sir; not above a certain point, but that it be entirely discontinued; in other words, that we complete only the ones already in progress of construction and not build any others until the use of the ones at the lower end, where the system would be complete up to Monroe, La., should determine the advisability of further construction.

Mr. Kennedy. As I understand this is a project where you did not start at one end and work toward the other, but you started at both ends and now have to fill up the gaps. Their contention has been, down there, that they can not develop a commerce until these gaps have been filled up.

Mr. Dupné. Is not this the only one that remains uncompleted—

this No. 5?

Col. Newcomer. No, sir. As you state, Mr. Kennedy, Congress began by authorizing one in Louisiana and one in Arkansas, then another in Louisiana and another in Arkansas, distributing the money in that way; and that resulted in the building of 2, 4, 6, and 8. Then No. 3 was put in. That gives a complete system at the lower end, up as far as Monroe, La. Nos. 6 and 8 are in Arkansas. No. 5, which is now under construction, will fill the gap between Nos. 4 and 6, of course, so that they will then have it complete up to No. 6. Whether further work should go beyond that is, of course, a question for Congress to determine when the question is submitted.

Mr. Kennedy. Unless we do, I assume the money spent on those

upper locks will largely be wasted.

Col. Newcomer. I think that is very likely, having gone as far as we have. We had hoped work would be started upon the commercial development with the locks already constructed. It appears now, No. 5, having been undertaken, that a further prosecution of the work so as to carry the commercial channel up to Camden, may be profitable; and we are making a study of this work above with a view of providing a channel to Camden. It was thought, for instance, by the district engineer, instead of putting in No. 7, that changes could be made in 6 and 8, with some dredging, at much less expense than for the additional dam. All that will be presented in due time.

Mr. Dupré. That is the idea I had in mind, that at the completion of No. 5 it would end it. Because last year, as you suggested, it was the understanding or belief that No. 7 would be abandoned and that with the completion of No. 5 it would complete the whole system.

Col. Newcomer. The Engineer Department simply has information indicating the possibility of doing that. We have not had any

report that has convinced us yet that it is a practicable scheme. It

Mr. Dupré. I think the whole neighborhood is reconciled to that

situation.

Col. Newcomer. It is quite possible, and probably that will be done; but we have no information yet to pass on the feasibility of

that plan.

Mr. Frear. We have appropriated so far something like \$4,200,000 on this project, and I understand when this dam you are working on now is completed that you propose to stop further work until Congress directs you to go on.

Col. Newcomer. Any further work would have to be based on

estimates submitted, of course.

Mr. Frear. Are you recommending that any further improvements

be placed in there, in locks?
Col. Newcomer. We are awaiting the result of an investigation being made by the district engineer as to the feasibility of modifying the present plan, which contemplates two more locks and dams, No. 7 and No. 9. We are quite certain No. 9 can be eliminated, and it seems quite possible No. 7 can be eliminated by making changes of some extent on 6 and 8. We are awaiting the result of the investigation of that proposition before passing upon it.

Mr. Frear. That relates to the question of transportation more particularly than to the question of the commerce being hauled; it

is to see whether it is being utilized.

Col. Newcomer. It is to see whether it is a practical engineering proposition to provide a channel by that means.

Mr. Frear. What do you think about the investment so far on that

river of \$4,000,000, in view of the commerce we have?

Col. Newcomer. The commerce, of course, is extremely unsatisfactory.

Mr. Dupré. Can they have any commerce until those locks and

dams are completed?

Col. Newcomer. That is, of course, true, though navigation is possible for a considerable portion of the year. I am sorry to state that No. 4 dam failed this year.

Mr. Dupré. At Harrisonburg?

Col. Newcomer. Just below Monroe. The base of that dam failed, due to some defect in the foundations. It had been showing some weakness ever since it was finished two years ago, and finally during this summer there was a breach of the dam owing to the leakage under it. It is very poor soil where the dam is built. That has to be repaired, of course, before they can have any substantial commerce through it.

Mr. Dupré. On page 2632 the commerce appears to be 139,000 tons, or a little more, and 109,871 tons of that was timber and 13,379 tons were staves. Of course, the staves were probably barged. There was some piling there, too. What I was going to ask is: Referring back to the prior year, we find the tonnage amounted to over 37,000 tons, and in one place there where timber appears, page 2545, it is stated that half was barged and half rafted. It has been omitted in this place. Is this rafted or barged?

Col. Newcomer. I think it is both.

Mr. Dupré. Why did they change the policy? Before, you gave some light on the subject, and of course it was commented upon in the House. You now leave it out entirely, and at the same time timber has increased three times as much as it was in the prior report.

Col. Newcomer. The tendency, I might state, is to barge more and more timber products. In other words, the lighter woods were first carried out more extensively by rafts, but now the timber is more valuable, and the tendency is to barge more and more of it. Why the discrimination between barge and rafted timber was omitted in this instance I can not say.

Mr. Dupré. That is important in order to enable us to determine how it is used. If it is rafted timber, they do not need all of

those locks.

Col. Newcomer. Certainly it would be desirable to give that.

Mr. FREAR. And yet the timber commerce increased over 200 per cent; that is, it was 30,000 tons once and now it is 109,000. That is what makes the large commerce increase, but you only discover that by looking at the items notwithstanding the increase in locks these figures show, and yet the engineers fail to show whether that is rafted or barged.

Col. Newcomer. This is mainly on the lower part of the stream. Of course, there is certain timber received at the mills farther up—there are a number of lumber mills along that stream—and the

timber is taken a short distance to those mills.

Mr. Frear. When it was barged the year before, the barges' haul was 73 miles to Camden—and how far is it up the Ouachita?

Col. Newcomer. The distance up to Camden——

Mr. FREAR. It runs 150 miles in the preceding year, and this time it is cut to about one-half. And might I ask about that, Colonel? On page 2545 of the report of 1916 practically all the commerce that is hauled has an average haul of about 150 miles. Now this last year's report cuts that down to 73 miles and less. What is the reason for that, if you know? That is less than one-half.

Col. Newcomer. I could not tell you. That is determined, of

course, by local information.

Mr. Frear. I was wondering if any degree of reliability could be placed upon those reports. If so, it seems to me an explanation is due

Col. Newcomer. I have no doubt an explanation can be given; but the only explanation that could be given would be by the person who has collated these figures. These figures are collected from a great many different people and are simply brought together in a table by the district engineer. The details would have to be obtained from him. I do not imagine these figures are so accurate

they can be relied upon completely in all instances.

Mr. Frear. You understand what I mean; not entire confidence, no; but here are 20 items in the 1916 report, substantially 20, 16 to 20, in which the commerce is carried from 150 to 160 miles. Now, referring to this year's report, for about the same 20 items you have before you, they are carried 73 miles. Now, there is such a difference, there ought to be some explanation, because they are not using half of the river that was used before, for these same particular items. What is the reason; why is the commerce not satisfactory,

anyway? I want to know just what reliability can be placed upon

a report that shows that difference.

Col. Newcomer. I explained yesterday, I think, or day before, that those figures are obtained by application to all of the boat lines, to receivers and shippers of freight; and the information that is collected in that way is boiled down for these tables. I have no doubt—you say there ought to be an explanation, and there certainly should be and I have no doubt an explanation can be had.

Mr. Frear. Will you inquire and see if it can be found?

Col. Newcomer. Certainly. I will be very glad to make that in-You will notice, of course, that there is an enormous mass of detail involved in the collection of those statistics over the country, and the details such as you are requesting can only be obtained from the local engineer.

The CHAIRMAN. And when the report is received, if there be no ob-

jection, it will be printed as a part of the hearings.

(In response to inquiry made by Col. Newcomer the following report was made:)

> United States Engineer Office, Vicksburg, Miss., January 23, 1918.

The CHIEF OF ENGINEERS, UNITED STATES ARMY, Washington, D. C.

1. The traffic on Red River below Fulton, in this district, is practically all on through boats between the mouth of Black River and the head of the Atchafalaya River, La. This distance is 35 miles.

2. The reduced distance of the average haul on different items of freight as given in the annual report of 1917, was caused by the through boats from New Orleans reducing the length of their trips and stopping at Harrisonburg or the mouth of Boeuf River, La., instead of running to Monroe, La., as heretofore.

3. The tonnage of timber rafted is reported under vessel classification in the annual report for 1917, while the amount reported under freight traffic includes both timber rafted and barged. These items will be separated under the heading of freight traffic in future annual reports.

T. C. THOMAS, Assistant Engineer in Charge.

Mr. Frear. Do you think that \$100,000 is necessary this year?

Col. Newcomer. That is necessary to carry forward the work on Dam No. 5.

Mr. Frear. Will that complete the lock?

Col. Newcomer. No; it will not complete the lock. It provides for a year's operation.

Mr. Frear. How much more will be required?

Col. Newcomer. It is my impression it will take about the same amount more the next year.

Mr. Frear. That is, it will require \$200,000 more to complete this one lock.

Col. Newcomer. Yes, sir; that is my impression.

Mr. Dempsey. What do those two small letters mean, b. m. feet of lumber, and b. m. feet of timber?

Col. Newcomer. Board measure.

Mr. Frear. Just one thing might be called attention to, there is \$441,000 on hand now, in the hands of the engineers, is there not?

Col. Newcomer. Yes, sir.

<sup>&</sup>lt;sup>1</sup> Timber rafted, 45,104 tons; timber barged, 64,767 tons; total, 109,871 tons. (Annual report 1917, p. 2632.)

Mr. Frear. That can be used toward the construction of this lock? Col. Newcomer. Only partly—that is applicable to the other locks under construction, also. The other locks are not entirely completed.

Mr. Dupré. Is not that the amount that was diverted last year? Col. Newcomer. The amount that was diverted last year is included in that. It was about \$270,000, I think, that was diverted to No. 5 last year.

Mr. Frear. And you require \$200,000 more to complete that?

Col. Newcomer. Yes, sir.

Mr. Frear. Of which \$100,000 is contained here?

Col. Newcomer. Yes, sir.

Mr. Frear. Then what is to be done with the balance of this four hundred and some odd thousand dollars that remains available?

Col. Newcomer. You will see all that given on page 1055—the

details of that.

Mr. FREAR. I mean just generally; I do not care to go into it

extensively.

Col. Newcomer. I think it would be well to look at that, if you will, on page 1055. There is a table there giving the details of the expenditure of that \$409,000.

The CHAIRMAN. Under the title of "Proposed operations."

Mr. Frear. Yes; I see.

Col. Newcomer. It is similar in all other cases. We give tables of that character.

Mr. Kennedy. Do you think the amount estimated to complete nere, \$1,615,000, will be sufficient, in view of the increased costs of materials, etc.?

Col. Newcomer. I think it will be probably less than that.

Mr. Kennedy. That is, if they modify the project?

Col. Newcomer. Yes, sir; if they modify the project; if it proves to be practicable.

Mr. Frear. Of this \$400,000, \$56,000 appears for superintendence and inspection of work under contract.

Col. Newcomer. And contingencies.

Mr. Frear. That is superintendence by whom?

Col. Newcomer. By the district engineer and the local force. Mr. Frear. Does it require that amount of money, \$56,000?

Col. Newcomer. That, I imagine, is largely made up of contingencies. Of course, superintendence and inspection, I would judge, would probably run in the neighborhood of eight or nine or ten thousand dollars. But we find every one of those locks and dams has had to have considerable work done upon them to provide for emergencies that arise in their construction, because the soil is so poor.

Mr. Frear. That is only on Dam No. 2, because when we come to Lock and Dam No. 3 the superintendence, care of plant, and con-

tingencies reaches twenty-five or twenty-six thousand more.

Col. Newcomer. Yes, sir. The item for contingencies for those locks and dams is very substantial, because, as I say, we have had a failure of Dam No. 4, even after doing considerable special repair work on it. The soil of the Ouachita River is extremely unfavorable for dam construction.

Mr. Dupré. There is money enough to repair the dam at Monroe, is there?

Col. Newcomer. That is paid out of the indefinite appropriation

for operating and care.

The CHARMAN. The next is the Little Rock, Ark., district. While there are no estimates of appropriation there, I would like to call the attention of Col. Newcomer to the Arkansas River, Ark. and Okla., for which no estimate is made. There exists a disposition or desire upon the part of one or more Representatives, who think they speak in behalf of the people contiguous to the Arkansas River, for enlarged appropriations. Will you please explain to the committee why no estimate is made, and also the reasons for the modifications of the project as heretofore recommended in House Document No. 461, Sixty-fourth Congress, first session, which recommends that the existing project be modified to provide only for snagging operations from the mouth of the river to the mouth of the Neosho, at an annual cost of \$150,000? I bring that up because I am sure questions will be asked by the committee and also on the floor of the House.

Col. Newcomer. We found that the experiment which Congress directed of attempting to maintain a navigable channel by the use of dredges was impracticable at any reasonable expense. Two special dredges were built for use on the Arkansas and we found substantially, as was anticipated by us in fact, that the rate of progress they could make would require such an increase in the number of dredges and such a large annual cost of operation that it would be entirely out of all proportion to any prospective commercial benefit, so that the Chief of Engineers recommended a discontinuance of that experiment. The only practicable method of getting a useful and practical channel in the Arkansas is by canalization, because the stream flow is not sufficient to give navigation during a large portion

of the year.

There is now in progress, I may state, a survey of the Arkansas River, which was directed by Congress two years ago. It did not call for a preliminary examination and survey, but directed that a survey be made. That was made at the instance, I think, of Senator Clarke, and that will be reported to Congress as soon as the information is collected. But I see no substantial reason for expecting any large use of the Arkansas River for commercial purposes.

Mr. Dupré. What has become of the dredges?

Col. Newcomer. The dredges were sent up to the Missouri River.

Mr. Frear. Would it be well to state, so as to have the matter made of record—we have appropriated \$3,924,000 for the Arkansas and at the present time have available \$163,000, and, taking the last commerce report, on page 2664 of the last report, aside from stave bolts, logs, and the one item of riprap stone, carried 18 miles, there is only about 4,000 tons of commerce on the Arkansas River at this time.

Col. Newcomer. There is substantially no commerce on the river except at the lower portion, below Pine Bluff. A boat has been running to that point from the Mississippi, but the amount of business done is comparatively small and does not justify the operation of those dredges.

Mr. TAYLOR. Is this amount of "current outstanding liabilities" to be deducted from the amount available for 1916, of \$1,300,000?

Col. Newcomer. No, sir; the amount available is the amount remaining after deducting that from the balance unexpended.

Mr. TAYLOR. Isn't it true that the sand bars interfere with the navigability of the river and that dredging would remove that trouble?

Col. Newcomer. Enough of the dredging will, but it would take so many of the dredges and it would be so expensive that it would be financially impracticable to get a useful channel. Even at best, the channel they could secure would not be, probably, more than 3½ feet, because that is all we tried to get with the dredges we had. The low-water discharge of the Arkansas River is so small you would not get a real useful channel. You ought to have 5 or 6 feet as the minimum. On the Missouri the discharge is so large that although the stream itself is extremely unfavorable, like the Arkansas, in caving of banks, shifting channel, etc., we can get a practical channel, as we have enough water there to give a 6-foot channel.

Mr. TAYLOR. During low water?

Col. Newcomer. Yes, sir.

Mr. BOOHER. That is the Missouri River? Col. Newcomer. That is the Missouri.

Mr. TAYLOR. What would it be in the Arkansas?

Col. Newcomer. As I say, that is not certain, because of the fact we never had enough dredges on it. As a matter of fact, I think we might get as much as 3½ feet if we had enough dredges. That is, in an open channel. By canalization you can get substantially any depth you feel necessary, but that would be an extremely expensive proposition on a stream of such characteristics, where the foundations are all of an inferior type.

Mr. Frear. On page 1093 I notice a weekly packet service was maintained between two points by the steamboat during nine months of the year, or for a large part of nine months of the year. That is

the only boat?

Col. Newcomer. Yes, sir.

Mr. Kennedy. What is the reason for keeping this money in this fund? You have \$163,000 on hand, and recommend that \$35,000 be spent each year for snagging. That appropriation was made against the recommendation of the War Department, which recommended \$35,000, and Congress has now ignored their advice and appropriated \$234,000 in the bill of 1916. Why leave this \$163,000 available here; why not transfer it to some other project that needs it?

Col. Newcomer. That, of course, could be done if it is felt desirable; but we simply leave it here and use it as we need it. Of course,

we do not draw it out of the Treasury until we do need it.

Mr. Booher. That is merely a matter of bookkeeping.

Col. Newcomer. Yes; it is simply a matter of bookkeeping. By the way, Mr. Chairman, returning to the Vicksburg district—did I cover that sufficiently on what you wanted there?

The CHAIRMAN. About the Arkansas. Yes; I think so.

Col. Newcomer. I neglected to call your attention to the fact that in the Vicksburg district, for the Yazoo River group, for which no estimates were submitted in the annual report, the district engineer recommends very strongly that an appropriation of \$15,000 be provided for the Yazoo River, and one of \$10,000 for the Tallahatchie and Coldwater. He states that the funds on hand now will be exusted by the necessities of the current year, so that he feels that

ake proper care of the commerce on those streams we should have

\$15,000 for the Yazoo and \$10,000 for the others. I recommend the inclusion of those estimates.

The CHAIRMAN. For the Yazoo \$15,000 and Tallahatchie and Coldwater \$10,000.

Mr. Frear. That is for maintenance?

Col. Newcomer. That is for maintenance.

The CHAIRMAN. And that is the recommendation of the office of

the Chief of Engineers.

Col. Newcomer. Yes, sir. The district engineer had originally submitted estimates thereof—\$16,000 and \$10,000—as well as several other items which we omitted entirely. But upon explaining the situation, and as a result of communications between the two offices, we came to the conclusion that these items of \$15,000 and \$10,000 should be included in the estimates.

Mr. Frear. You have \$75,000 or \$76,000, from the amount avail-

able continuously, now on hand for the different projects.

Col. Newcomer. Yes, sir; for the group.

Mr. FREAR. And under the authority, which has been exercised by the engineers, you can divert any portion of that to any other of

these projects.

Col. Newcomer. I considered that in connection with this matter, whether any of that could be diverted and, as a matter of fact, it could not. Most of that is for the Big Sunflower River—\$45,000—and most of that will be needed at that lock and dam. It is a lock and dam proposition. So I do not think it is safe to rely on that fund.

Mr. Dupré. And the figures given us as available for the Yazoo and Tallahatchie, those amounts will be exhausted by the end of the fiscal year.

Col. Newcomer. We expect that amount to be exhausted this fiscal

year.

The CHAIRMAN. We now come to the St. Louis (Mo.) district, and the first item for which an estimate is made is the Mississippi River, between the Ohio and Missouri Rivers, \$100,000 for further improvement.

We will be glad to hear from you on that estimate.

Col. Newcomer. That should really come under the head of maintenance, as we are now proceeding under the plan which calls only for the maintenance of existing works, with such little extensions as may be required from time to time for their maintenance. In other words, an attack begins upon a bank in such a way that it threatens the work already in existence and requires some extension of that work for its protection. It is really only on work of that character that we are undertaking further improvement. It was about two or three years ago the department approved the proposition of suspending further active prosecution of the work between St. Louis and the mouth of the Ohio, because we found that with the works already built and with the use of the dredging plant we had we could maintain the 8-foot channel, which is the project depth. Ultimately, if the commerce develops there to a sufficient extent to justify it, it will probably be desirable to go ahead with the improvement work, which contemplates fixing the channel throughout and ultimately reducing, probably, the cost of annual dredging. We are estimating now on a basis of \$350,000 a year as the amount, substantially, for

maintenance; and this \$100,000 is asked simply to make good the necessary sum for that purpose.

Mr. Frear. It is largely expended for maintenance, you say,

Colonel?

Col. Newcomer. Yes, sir.

Mr. Frear. And what is the distance? Col. Newcomer. It is about 200 miles.

Mr. Frear. That is about the amount annually expended on some-

thing like 200 miles?

Col. Newcomer. Yes. We were, of course, expending it on a much larger scale than that a few years ago, when the cost of the project was estimated at something like \$20,000,000. You see, the estimated cost to complete is a matter of \$16,000,000, but we have now suspended work on that project.

Mr. Frear. Are there any boats there now which require more

than the 8-foot depth provided?

Col. Newcomer. No, sir. This is simply to maintain the 8 feet. Mr. Frear. Just one more question: What is the depth from St.

Louis down the river to New Orleans?

Col. Newcomer. We maintain 8 feet to Cairo and 9 feet below that.

Mr. Frear. That accommodates all of the packets?

Col. Newcomer. Substantially; yes, sir.

Mr. FREAR. What is the depth of those barges? What do they draw?

Col. Newcomer. On the lower Mississippi the coal barges draw as much as 8 or 8½ feet. Of course, they do not attempt to take as big barges as that up the Mississippi above Cairo, except during favorable stages of water.

Mr. Frear. Are those barges operating on the Ohio?

Col. Newcomer. Yes, sir.

Mr. Frear. Drawing 8 feet?

Col. Newcomer. Yes, sir; some of them draw as much as that and

some of them draw only 6 and 7 feet.

The CHAIRMAN. The next is the Rock Island, Ill., district, where there is an estimate for the Mississippi River between the Missouri River and Minneapolis, Minn., of \$500,000, for improvement, including maintenance.

Col. Newcomer. That item is the amount that is estimated as necessary to keep going the present parties working on the river. It is work under the 6-foot project for the upper Mississippi which was undertaken a number of years ago with the idea of being completed in 1922, I think it was. Of course, a more rapid prosecution of the work than this fund would permit would be necessary if you are going to complete it within the time Congress specified. We felt, under present war conditions, the thing to do would be to supply the funds necessary to keep the present parties at work, but not to enlarge.

Mr. Frear. You believe that will accommodate all the commerce

there is in the immediate future?

Col. Newcomer. Of course, this is not really so much a question of accommodating commerce as it is to provide for the operation of forces now organized for carrying on this work. We have quite an extensive Government plant and, of course, several contracting plants -1so, and it is very advisable to provide enough funds to keep them

at work, as the plant if of special type, quite expensive, and should

be kept in use. Of course, the commerce is not extensive.

Mr. Frear. I am not criticizing that. What I mean to say is that will be a sufficient amount to meet the demands of the commerce, in your judgment?

Col. Newcomer. Of course, the commerce demands a 6-foot depth,

but we won't get that for some years to come.

Mr. Frear. Does any commerce carried there demand a 6-foot depth?

Col. Newcomer. Oh, yes.

Mr. Frear. What?

Col. Newcomer. The commerce that was started this last year—the ore and coal traffic.

Mr. Frear. That is always what I hear about "last year"; but,

Colonel, no commerce appears in the report.

Col. Newcomer. You understand they started some time ago a boat line?

Mr. Frear. I understand they were considering starting a boat line.

Col. Newcomer. There have been lines in operation between St. Louis and St. Paul for some years?

Mr. Frear. But these boats only take 3 or 4 feet.

Col. Newcomer. No; they take 4 or 5.

Mr. Frear. I have been on the St. Paul boat, which only takes 4 feet, unless it is loaded down.

Col. Newcomer. That is, loaded down.

Mr. Frear. Oh, it is never loaded down-

Mr. Kennedy. It is only a passenger line; it only runs during the heated period of the summer.

Col. Newcomer. I was under the impression their boat drew 5 feet, and carried freight.

Mr. Kennedy. That may be.

Col. Newcomer. This other proposition is a live proposition, in this sense—the movement of iron ore down the Mississippi from St. Paul was undertaken as an experiment this last season on one trip on barges which carried coal from Illinois up to St. Paul. The Shipping Board has allotted over \$3,000,000 for the building of 24 barges and 4 towboats for service on the upper Mississippi; and, of course, they would need for traffic of that kind a 6-foot depth.

Mr. FREAR. That is what I had in mind, Colonel. Will they need

more than you are able to provide at the present time?

Col. Newcomer. Oh, yes, sir. But it will simply mean that until the 6-foot project is completed to that depth they will either have to discontinue the operation of the barges during certain periods or to load the barges lighter, and that is what they probably will do—carry half loads instead of full loads.

Mr. Frear. What is the depth you have now on this part of the

river?

Col. Newcomer. The 4½-foot project is said to have been completed, and, I think, they have substantially that depth all the time. Of course, in a stream subject to such great variations of stage, such as the Mississippi—during those changes of stages it is always changing on the bars, and there will be some periods, possibly, when there may be a less depth than that, a depth of only 3½ feet. But that is

only for a short time, and they have a number of dredges which can go to those points and dredge them out.

Mr. Kennedy. Won't it be possible to keep the channel open?

Col. Newcomer. Oh, sure.

Mr. Kennedy. And the purpose of your activities, to some extent, is to keep the channel open for the traffic.

Col. Newcomer. Oh, that is very true. But we can not assure a

6-foot channel.

Mr. Kennedy. At low water.

Mr. Frear. The barge line—only one barge there has been built and carried some coal?

Col. Newcomer. Oh, no. They used more—I don't know how

many; they were Government barges used this last summer.

Mr. Frear. Built for this purpose, or some of them were diverted? Col. Newcomer. They were built for another purpose and leased for this work.

Mr. Frear. What success has attended that?

Col. Newcomer. They were successful in getting coal up to St. Paul; but they had a very hard time in getting the ore back, largely, as I understand it, because the man in charge of it insisted on taking down too big a tow, taking all those barges in one tow, and, of course, operating in such a contracted waterway they were subject to very great delays; so that the time consumed in going down, I think, was several weeks, where it should have been several days. The experiment was not particularly successful; but it showed the practicability, of course, of getting through, and they could have gotten through with less loss of time and money, probably, if they had simply accommodated themselves to the unfavorable condition of the channel.

Mr. Kennedy. They loaded a full cargo.

Col. Newcomer. Yes. They sent actually more ore than was ordered; they sent additional ore, and the consequence was they loaded the barges more heavily than even Mr. Goltra had intended they should do.

Mr. Frear. Are those barges intended to be leased to ore lines or

coal lines?

Col. NEWCOMER. Yes, sir.

Mr. Frear. I asked the other day, Colonel—I do not know whether you have examined into it since—why the engineers placed in the commerce report of 1913 automobiles valued at \$9,000,000 and then left them out in 1914 and 1915, and again last year put them in \$41,000,000. Did you make any inquiry on that? This was in relation to ferriage across the upper Mississippi River.

Col. Newcomer. I have already written to the district engineer at Rock Island and told him to let us know which items in that list were ferry items that should be segregated from the others in the record, and also indicating the opinion that the teams and automobiles which were carrying passengers or commodities should not

themselves be included as a part of the commerce.

The CHAIRMAN. We now come to the St. Paul, Minn., district. There is a group of items there. The first one is the Mississippi River between St. Paul and Minneapolis, in which an estimate of \$80,000 is submitted for further improvement; and in the same

group the reservoirs at the head of the Mississippi River, for which

there is an estimate of \$32,000 for further improvement.

Mr. Switzer. Isn't that a power-development proposition there? Col. Newcomer. That item of \$80,000 is required substantially on account of the necessity of obtaining flowage rights for what is called the Twin City Lock and Dam between St. Paul and Minneapolis. That dam is now built, and there remains a small amount of work on it to complete it for the foundation of the dam. The estimated cost of the flowage rights is \$85,000. We have some funds on hand; so that the amount estimated as the additional sum required is \$80,000.

Mr. Frear. When we made the appropriation of something like \$250,000 a year or so ago, that was expected to complete the work there, was it not? It was expected it would complete the work and,

possibly, acquire the flowage rights, wasn't it?

Col. Newcomer. It was expected to complete the work there and possibly acquire the flowage rights.

Mr. FREAR. Those flowage rights had not been acquired before?

Col. Newcomer. Yes, sir.

Mr. Frear. And they are needed to complete the project?

Col. Newcomer. This is needed in order to satisfy the obligations of the Government. They are, of course, in connection with the construction of that dam. That matter has been under discussion for quite a while. Part of the land rights have been settled by transfer to the city of land belonging to the Government at the abandoned lock and dam site, in exchange for city land submerged; but, in order to clear up the situation, it is expected we will have to pay about \$85,000 to acquire the rest of the flowage rights needed.

Mr. Frear. There is no commerce up there now?

Col. Newcomer. Substantially nothing has developed yet.

Mr. Frear. Is anyone using that water power for any purpose? Col. Newcomer. No, sir; the water power has not been developed yet. The power house substructure is in, but no machinery is in for generating power and Congress has not indicated what disposition will be made of that.

Mr. Frear. Who owns the power house?

Col. Newcomer. The Government.

Mr. Frear. The Government is building the power plant?

Col. Newcomer. The Government has built the power house substructure; that is, the essential part which forms part of the dam, so to speak. The substructure of the power house is one element in the dam, and that has been built so that the machinery can be installed and the power plant completed whenever it is decided to go ahead with the development of power.

Mr. Frear. Have you done that in any other case, Colonel?

Col. Newcomer. That is the only case I know of where the Government has made provision for the substructure of the power house.

Mr. Frear. I remember the Engineer's report formerly said this was expected to develop some passenger business. Of course, there has never been any passenger business so far as the reports show.

has never been any passenger business so far as the reports show.

Col. Newcomer. Of course Minneapolis has been interested in this proposition. They have gone to some expense to build a terminal at Minneapolis and those people are very much interested in this move-

ment to build a barge line for service on the upper Mississippi. They claim a good deal of their products will be sent down the Mississippi

through this lock and dam.

The CHAIRMAN. Colonel, it appears that legislation by Congress will be necessary before this water power is utilized. Has the department made any recommendation as to the character of legislation?

Col. Newcomer. No, sir; they have not been asked to.

Mr. Kennedy. Has there not been some offer made there on the

part of the Twin Cities to utilize this power?

Col. Newcomer. There was some offer made on the part of the Twin Cities. That use by the cities of the power there would probably be the logical outcome of the situation. I think they have contemplated that, but no definite steps were taken by Congress to permit that or to make any arrangement for it.

Mr. Kennedy. But haven't the Twin Cities made a proposition to

the Government officially?

Col. Newcomer. I think there was a proposition made at the time

of the change from the low dam to a high dam.

Mr. Kennedy. That is my understanding, but no action was taken

on that by Congress.

Col. Newcomer. I think they made the proposition then which looked to the immediate utilization of the power as soon as the dam would permit it; but Congress (I suppose on account of the unsettled condition generally of the dam question) refused to act on it.

Mr. Frear. What was the idea of the Government putting money into the river at that point for power purposes, when it had never done it elsewhere? Was it brought about by legislative pressure on the engineers or by the engineers recommending this themselves?

Col. Newcomer. I think it was brought about by local agitation. They noticed there was this source of power which, of course, is made much more effective by building one high dam than by building two low dams. The low dams are apt to be drowned out at the freshet stages.

Mr. Frear. You have two dams there?

Col. Newcomer. The existing power plants are all higher up at the falls, and of course they develop power there; but this afforded another opportunity for power, and they thought it ought to be planned so as to permit power development as well as navigation; and that appeal to Congress was effective.

Mr. Dempsey. How much power will be developed, Colonel?

Col. Newcomer. It is my impression somewhere in the neighbor-

hood of 25,000 horsepower.

The CHAIRMAN. It is stated here in the annual report, "The improvement will also make possible the generation of 15,200 horse-power of electricity. Nothing can be done in this connection, how-

ever, until further action is taken by Congress."

Mr. Frear. We permitted the Keokuk Dam people to acquire power on the Mississippi, and they have constructed a dam and run it independently. There has been a different policy pursued in the one case than in the other, and it is a very important proposition because it is establishing a precedent. In the one case the Government establishes the dam, and in the other case they give the Keokuk

power people the right to build. What is the reason for the distinc-

tion in that policy?

Col. Newcomer. The navigation interests at Keokuk were already accommodated by the river improvement. There it was simply a question of getting power, the Government needs for navigation being sufficiently met, and as a result of that situation the power people had to provide the money for the dam. The city of Minneapolis needed the dam for navigation interests, and it desired to get the power developed if the dam was built.

The CHAIRMAN. Incidental to navigation?

Col. Newcomer. Yes; of course it was adopted primarily for navigation, and then it was afterwards modified so as to permit a more

favorable development of power.

The same thing occurred on the Black Warrior River. You remember Dam No. 17 there was a high dam, taking the place of lower dams which were first planned simply as a navigation feature. In that case also the Government incurred the additional expense, which was considerable, of conserving that power situation.

Mr. Frear. For the benefit of such parties who chose to lease?

Col. Newcomer. It was expected to be for the benefit of the Government also.

Mr. Frear. Who is that leased to?

Col. Newcomer. Nobody yet. It is in the same situation as at St. Paul.

Mr. Frear. Of course there is no commerce on the Mississippi between St. Paul and Minneapolis?

Col. Newcomer. Not yet.

Mr. Frear. And the river has been in existence since the age of man.

Col. Newcomer. Oh, no; the dam has just been completed.

Mr. Frear. I understand; but there has never been any commerce there. In fact, there is little commerce from St. Paul down the river, or practically very little. I think 14 miles was the average haul on the upper Mississippi last year, between terminals.

Mr. Kennedy. You were speaking about the Keokuk project being

for power alone. I think you are in error about that.

Col. Newcomer. This power proposition has given increased com-

mercial facilities also.

Mr. Kennedy. The improvement to navigation was the reason, I think, on which the engineers gave their favorable report. It has proven to be a very great aid to navigation and has provided an increased depth of water for some 65 miles above the dam. And by building this dam in the river there has been a saving to the Government of about two million dollars.

Col. Newcomer. It undoubtedly has improved the navigation situation by that. Moreover, there was a company above that point on the river that undertook to build some big boats, and the locks at Keokuk were enlarged materially, after the plans were first made for the power plant, because the people claimed they ought to have bigger locks in order to get these boats out, and make adequate provision for the future.

Mr. Switzer. There is a dam below Chattanooga, put in by private parties?

Col. Newcomer. Oh, yes.

Mr. Switzer. And of course the development of power naturally improves navigation, and there is water up the river for 30 or 40 miles?

Col. Newcomer. It is a very substantial improvement to navigation.

Mr. Switzer. That is one of the highest lift locks. It is between 40 and 50 feet, and it cost those people about \$10,000,000. I understand it cost \$10,000,000 to build that dam.

Mr. Frear. They put it in at their own expense?

Mr. Switzer. They put in \$2,500,000. The company started and got Brady in and then the company broke up and Brady went on and spent \$10,000,000. And it is completed and making 40,000 or 50,000 horsepower. It has a big horsepower, but it won't pay only on about a two or three million dollar investment.

The CHAIRMAN. Colonel, you have not made any comment on the item for reservoirs at the headwaters of the Mississippi, \$32,000 for

further improvement.

Col. Newcomer. That item is also for acquiring flowage rights, in this case at the Sandy Lake Reservoir. We find that the operations of the reservoir have affected property over which we had not acquired flowage rights, and this sum is estimated as necessary to purchase those flowage rights.

The CHAIRMAN. Why are no estimates made on the Mississippi River between Brainard and Grand Rapids and for Mississippi and

Leach Rivers?

Col. Newcomer. Because we have sufficient funds on hand.

The CHAIRMAN. The next item is Warroad Harbor and Warroad

River, Minn., \$4,000 for maintenance.

Col. Newcomer. That amount is required in order to restore the project depth and make some repairs to the jetties I think they have there. In addition to repairing the plant that is used for those two isolated works, one at Warroad Harbor and the other at Zippel Bay, Lake of the Woods, these two items, four thousand and two thousand, making a total of \$6,000, are required to restore the project depths at these points. The commerce, you will notice, is not at all heavy at those places, but they are absolutely dependent upon those harbors for taking care of the boats.

Mr. Frear. Doesn't that enter into Lake Superior?

Col. Newcomer. No; it is Lake of the Woods. There are a great many boats on the Lake of the Woods and these are the harbors at which they are accommodated.

Mr. Frear. It is a very small commerce? Col. Newcomer. A very small commerce.

The CHARMAN. I have just had a piece of information that brings regret to me and I am sure will to the committee. Mr. Kettner has accepted a position on the Committee on Naval Affairs, and is going to tender his resignation as a member of this committee. Personally, I regret the severance of his relations with the committee very much. He was always agreeable and pleasant and has certainly always been most active and unselfish in his service on the committee.

Mr. OSBORNE. I especially want to protest against Mr. Kettner's going. I feel I shall be very lonely, from California, without his

presence. And I am particularly concerned, having for 40 years lived out there in the sunny climate of California, and never having spent a winter in all that time in the East, about spending so much time, as I do, in this cold room. I feel his withdrawing will very appreciably lower the temperature. His genial smile is always a source of comfort and pleasure.

Mr. Dupré. You mean "warmth," too.

Mr. OSBORNE. Yes. And I desire to express my great regret that he is going to leave this committee; although I am sure he will do fine service wherever he is placed.

Mr. Frear. I suggest that be put in print and that we all sign it

as expressing the views of the committee.

Mr. Kettner. Mr. Chairman, I want to assure you, and the committee, that it is with deep regret that I am leaving this committee. The chairman, the committee, and every member of the Corps of Engineers have been extremely kind to me, and my associations have been very, very, pleasant. But, as the chairman stated, my people have requested me to become a member, if possible, of the Committee on Naval Affairs, as there is but one member west of the Rockies from the State of Oregon on that committee, and they thought it only right and proper that the great State of California should be represented on the Naval Affairs Committee. I thought it my duty to comply with their request, but I want to assure you again that it is with deep regret that I tender my resignation.

Mr. Frear. You understand, then, you have been drafted.

Mr. Kettner. More or less; yes.

(The committee thereupon adjourned until Friday, January 11, 1918, at 10.30 o'clock a.m.)

## COMMITTEE ON RIVERS AND HARBORS, HOUSE OF REPRESENTATIVES, Friday, January 11, 1918.

The committee met at 10.30 o'clock a. m., Hon. John H. Small

(chairman) presiding.

The CHARMAN. I will read to the committee letter of G. K. Little, special disbursing officer, United States engineer office, Mobile, Ala.; also letter of Mr. F. H. Davis, president Pascagoula Commercial Club, to Mr. Little (reading):

WAR DEPARTMENT, UNITED STATES ENGINEER OFFICE, Mobile, Ala., January 2, 1918.

Hon. John H. Small,

Chairman River and Harbor Committee,

House of Representatives, Washington, D. C.

Dear Sir: Referring to inquiries made by you as to proposed terminal facilities in this section of the country during your recent visit to Mobile and also your remarks on the same subject when I met you about a month ago in the office of the Chief of Engineers, there is inclosed herewith copy of a letter just received from the Pascagoula Commercial Club in regard to the action taken by that city. As this action on the part of the citizens of Pascagoula is believed to have been caused, or at least hastened by your letter of October 5, it is thought that you would be interested to know of this matter.

Yours, very truly.

G. K. LITTLE, Special Disbursing Agent.

PASCAGOULA, MISS., December 29, 1917.

Mr. G. K. LITTLE.

Special Disbursing Agent,

United States Engineers Office, Mobile, Ala.

DEAR SIR: We beg to acknowledge receipt of your letter dated November 8, 1917, calling our attention to the letter of Hon. John H. Small, chairman of the Rivers and Harbors Committee, of date October 5, and the letter of the Secretary of War, dated October 6, 1917, copies of which were attached to your letter, in reference to providing terminal facilities at the various ports of the United States, transportation facilities, etc.

We are pleased to advise you that the port of Pascagoula has taken prompt action in this matter, and the city will at once issue \$40,000 in bonds for the acquiring of river frontage and construction of docks and warehouses at a convenient point for the public in the handling of both rail and water freights. These docks will be connected with the several railroads here, and we believe that within 12 months or less the work outlined will be completed and ready

for use.

The contemplated development will include 1,000 feet of river frontage, with the necessary covered sheds for the storing of freight; in addition to this development the city owns in fee simple practically 2,000 feet of other river frontage, which can and will be developed as the needs of commerce will require.

We beg to add our indorsement to the suggestion of Chairman Small and Secretary Baker in this matter, and believe that it will add greatly to the handling of freights and developments of the seaports of the country besides reduction in freight rates.

Very truly, yours,

PASCAGOULA COMMERCIAL CLUB. By F. H. LEWIS, President.

The CHAIRMAN. We will begin this morning with the Kansas City (Mo.) district, page 33, of the committee book, at the top of the page. The first item for which estimate of appropriation is made is the Missouri River from Kansas City to the mouth, \$100,000 for maintenance, and \$400,000 for further improvements. Colonel, we will be glad to hear from you on that item.

## STATEMENT OF COL. H. C. NEWCOMER. ASSISTANT TO THE CHIEF OF ENGINEERS. WAR DEPARTMENT—Resumed.

Col. Newcomer. The situation on the Missouri River between Kansas City and the mouth, with reference to the expenditure of available funds and those estimated, is set forth at considerable length on pages 1172 and 1173 of the annual report. You may wish to refer to that for further details. In brief, this amount, \$500,000, is the amount that we consider essential to keep the working parties on the river at work until the appropriation afforded by the next bill becomes available. We have now a very substantial amount on hand. We need the \$100,000 for maintenance for the operation of the dredges, which were transferred to this river from the Arkansas. We find that those dredges were very successful in the past year in keeping the channel open, so that the boat line operating between Kansas City and St. Louis could continue operation throughout the season. This is the first time they have been able to do that. They have been usually stopped by low water.

The \$400,000 for further improvement is the amount required to keep the operating plants on the river busy until the next session of

Congress provides more funds.

Mr. Dupré. Is that the stretch of the Missouri River which those men who appeared here with Mr. Borland the other day had in mind? The CHAIRMAN. Yes.

Mr. Frear. In this connection, on page 1172, it shows the total amount that is estimated necessary to carry on the work to be \$1,699,708 for the coming year.

Col. Newcomer. No, sir; that is just the funds that were unex-

pended on July 1.

Mr. Frear. Yes; but what is in this statement \$1,699,000; is not that what you propose to do now, or is that what has been accomplished?

Col. Newcomer. That is what we propose doing with the funds available July 1; and then the next statement gives you the applica-

tion of the funds appropriated by the act of August 8, 1917.

Mr. Frear. Then, referring back to page 1172, out of this \$1,699,-708 for improving the lower Missouri River, \$629,318 is for revetments; that is, to prevent the washing of the banks; that is, practically for reclamation?

Col. Newcomer. That is a part of the revetment only; that is the

part that is done by contract.

Mr. Frear. Then comes the next item, \$246,000 for standard revetment again. This \$364,000 is in addition to the other items for revetment, and the only amount for dredging in that whole statement—of \$1,699,708 required for the Missouri River—is \$75,000 for dredging and \$15,000 for repair of dredging boat; is not that right?

Col. Newcomer. That is right.

Mr. Frear. Only \$90,000 for dredging and all the rest of the

\$1,600,000 is for revetment and protection of land?

Col. Newcomer. You are mistaken when you say "Protection of the land." That is for the protection of the channel. The method of improvement on the Missouri River-

Mr. Frear (interposing). Has not "Protection of the land" any

connection with this?

Col. Newcomer. Holding the river in a fixed position will protect the land from erosion, and in that way a great incidental benefit accrues to the land, but it is essential as a method of improvement; we can not improve that channel unless we hold it in one position.

Mr. Frear. One of the engineers' reports stated there were 500,000 acres of land to be reclaimed under this proposition—this improvenent of the lower Missouri River. I suppose you are familiar with that statement.

Col. Newcomer. Yes, sir.

Mr. Frear. That is true, is it not?

Col. Newcomer. Essentially; yes, sir.
Mr. Frear. That is true in that case, and on page 1173 the expenditure next year for revetment and diking, is in the same proportion as the last given or practically so. I notice the next item, the Missouri River from Kansas City to Sioux City, has this memorandum opposite it:

"Of this amount \$227,000 was contributed by local interests;" in addition, so many thousand dollars by other interests. That is for a small expenditure on the river between Kansas City, Mo., and

Sioux City.

Col. Newcomer. Yes, sir.

Mr. Frear. If a contribution of \$227,000 was exacted there, why was not the same contribution exacted on this lower branch of the river, when we are expending all this money for reclamation of

Col. Newcomer. I think that cooperation on the part of local interests would certainly be justified between Kansas City and the mouth also, but the situation is far different above Kansas City. Above Kansas City a work was undertaken, not substantially for the improvement of the channel but simply to protect the property, and in that case, of course, the condition was attached that the propery owners must contribute to it. Here, below Kansas City we are engaged in a very large, extensive, project for the improvement of the channel. The revetment of the banks is an essential element in holding the channel, not only revetment, but also the dikes, which are built. Of course, both of those tend to hold the banks, and in that way protect the land. It was also proposed by the local interests that the Government should build fevees, but that we are not doing. The levees are also needed and are being built by local interests. The Government is not contributing to that. I think it would be very proper on their part to contribute to this holding the channel, but to what extent you could require that would have to be investigated.

Mr. Frear. This is the lower project, and the one that Col.

Deakyne reported for abandonment.

Col. Newcomer. Yes, sir.

Mr. Frear. And also Col. Townsend, president of the Mississippi River Commission, reported against the lower project? Col. Newcomer. That is right.

Mr. Frear. But they were overruled by the present Chief of Engineers.

Col. Newcomer. By the River and Harbor Board and also the

Chief of Engineers and Congress.

Mr. Frear. Where is Col. Deakyne? Col. Newcomer. He is commanding one of the regiments in France.

Mr. Frear. And Col. Townsend?

Col. Newcomer. He is in France also.

The CHAIRMAN. Colonel, it might be well for you to describe briefly the method of improving the channel on the Missouri River

from Kansas City to the mouth.

Col. Newcomer. The method of improvement consists in fixing the channel by the construction of bank revetment to hold caving banks, and of dikes to contract the waterway where it is too wide. The river is taken up in sections, depending upon the local physical conditions. There are portions of the river that have what we call "bluff contact," that is, where the river flows along high land, where the shore is practically stable, permanent, and not subject to erosion. We take such a place as a point of departure and then try to hold the channel going downstream until we get to the next bluff contact. Of course, the river changes very rapidly where it is not controlled, and sometimes we have to wait for changes that are in progress and let them proceed to a certain extent before the river is in proper shape to hold. All those things are taken into consideration, of course, in expending the money from year to year.

have had great pressure applied to us on the Missouri River to aside from this systematic method of procedure and take up isolated bits of work. Of course, it is impossible to obtain permanent improvement if you proceed in that way. It is only where those isolated points assume special importance threatening cut-offs or something of that kind that we go to them. The work is proceeding on a very satisfactory line, so far as the engineering proposition is concerned. We are making good progress and we expect to be able to hold the river at very heavy cost, it is true, and whether the commercial outcome of that is successful remains to be seen, of course.

Mr. Switzer. But you say revetment work is one of the essential things to be done in order to secure a permanent channel?

Col. Newcomer. On the Missouri River that is essential. There

the river changes so rapidly.

Mr. Switzer. You always consider that one of the things that has to be done?

Col. Newcomer. That has to be done.

Mr. Frear. Is there any other river in the country where ninetenths of the appropriation annually is for revetment?

Col. Newcomer. No, sir; there is no other.

Mr. Kennedy. About what per cent of the banks have to be

revetted to hold the banks.

Col. Newcomer. I think it is figured substantially that practically one bank or the other throughout the whole length of the stream, and possibly a little more than the length of the stream, would be represented, because in some places they overlap.

Mr. Kennedy. What has been the condition of commerce during

the last year; has it increased?

- Col. Newcomer. I do not think it has increased to any notable extent. The operations of the dredging fleet has enabled the line to operate throughout the season, but I do not think that the figures for commerce are given. On page 1174—but that you see only gives the aggregate, including the amount of sand and gravel and things like that—you will have to go to the second volume to get the details.
- Mr. Frear. I have examined that myself, and, to be frank, it has been decreased about one-half, after deducting sand and gravel hauled 1 mile.

Col. Newcomer. I have not examined it.

Mr. Frear. What I ask is, during the past year has the boat line been maintained?

Col. Newcomer. One moment, Mr. Frear. These statistics that are given in here are for the calendar year 1916. The dredge boats only operated during the calendar year 1917. In other words, the statistics for the year just past are not in this volume.

Mr. Frear. Two years ago we were assured—this boat line had been established before that—that there would be a rapid increase in the commerce on the river. There has been a decrease during the

past year.

Col. Newcomer. There was a very considerable period during 1916 when the boats could not operate, and that is really the reason why we transferred the dredges up there.

Mr. Frear. Give us the necessity for dredging.

Col. Newcomer. In other words, to facilitate traffic, as a temporary expedient, while the permanent works are being built. We thought

it was proper to operate the dredges there so as to enable the existing traffic to be carried on and to grow as they claimed it would, if we simply gave them a continuous channel.

Mr. Frear. The fault was with the channel?

Col. Newcomer. In 1916 it was.

Mr. Frear. The amount necessary to complete this lower project, in order to test the value of the lower Missouri River, will be in addition to the \$13,000,000 already spent, an additional amount of \$11,600,000.

Col. Newcomer. That is right.

Mr. Frear. That will be a total of about \$25,000,000?

Col. Newcomer. That is the amount estimated to complete this 6-foot channel. Of course, before we reach that point, there ought to be some indications of the commercial value.

Mr. Dupré. Just for my information, how far above St. Louis does

the Missouri River flow into the Mississippi?

Col. Newcomer. It is 17.5 miles from the Eads Bridge at St. Louis to the mouth of the Missouri River.

Mr. Dupré. What is the name of the place?

Mr. Booher. Near Alton, Ill.

Mr. OSBORNE. With reference to this 500,000 acres, do you know what the character of that land is?

Col. Newcomer. It is very fertile bottom land.

Mr. OSBORNE. Will its value be more or less affected by the building of these revetments?

Col. Newcomer. Undoubtedly.

Mr. Osborne. Have they contributed anything at all to the fund?

Col. Newcomer. They have not.

Mr. Frear. How is it with respect to this lower river as compared

with the Mississippi River?

Col. Newcomer. On the lower Mississippi they have not contributed to the revetment work except in a very small way. On the lower Mississippi River the contribution has been to the levees, and here on the Missouri they are building the levees totally by themselves.

Mr. BOOHER. Did you not hold an investigation in Kansas City for several days to see whether it would be a good idea to ask for contributions; do you not remember that?

Col. Newcomer. I think the question of local cooperation was con-

sidered there.

Mr. Booher. Yes.

Col. Newcomer. I was not present at that hearing.

Mr. Booher. I do not remember your being there. And was it not determined by the engineers that they would report against the Government building any levees on the Missouri River, that people should build their own levees and the Government would build the channel?

Col. Newcomer. That was the conclusion reached. It was considered impractical on account of the scattered position of these lands to arrange for any local cooperation. In other words, there were so many different tracts or plots here and there, so there would be considerable practical difficulty in securing a local contribution and the amount of that would probably be no considerable per cent anyhow for the total.

Mr. Switzer. Haven't they built any levees?

Col. Newcomer. Yes, sir.

Mr. Dupré. Is that land subject to overflows? Mr. Booher. It gets 30 or 40 feet under water.

Mr. Frear. It has been suggested by a prominent waterway man of the country that during the overflow of the Missouri River, the waters could be used and diverted down to irrigate the land of northern Texas, which has been subject to drought for some time past. What is your judgment about that?

Col. Newcomer. I think that is entirely impracticable.

Mr. Frear. That comes from a man who is considered one of the strongest men in the river-publicity work to-day.

Mr. Kennedy. How would you carry the water down?

Mr. Frear. I suppose he meant by dikes or something of that kind. Mr. Booher. The report of the hearing at Kansas City has been published as a public document, has it not, Colonel?

Col. Newcomer. Yes, sir.

Mr. Booher. I forget the name of it, but you can find it by inquiring at the Congressional Library. The hearing was published in

Mr. Frear. I have that and have read it several times, and also the brief in connection with it.

Mr. Osborne. This 500,000 acres of land seems to me to be a very large lot of land. It is about as much land as there is under irrigation in Southern California, excluding the Imperial Valley. have the whole southern part of the State under irrigation and we produce \$100,000,000 worth of produce there, or more than that. Even if this land is somewhat scattered, it seems to me it must cover considerable territory. That is an immense area of land, and I want to ask you what, in its present condition, is the probable value?

Mr. Booher. When you can get any sale for that bottom land at

all it usually brings \$25 to \$40 an acre.

Mr. Osborne. What would it be worth if protected?
Mr. Booher. If the river bank was protected from washing and erosion, it would be worth \$100 an acre.

Mr. Kennedy. It would have to be tiled and ditched?

Mr. BOOHER. Yes; it would have to be tiled, and on the upper Missouri River the farmers are reclaiming and building up their land, but they are making no levees, because the water washes the levees away, by the erosion of the banks, and they do not build levees any more.

Mr. Osborne. Is there any distinction in practical results so far as

protection goes between revetments and levees?

Col. Newcomer. The revetment simply holds the natural bank. Of course, it does not affect the question of overflow at all. The levee on the other hand is an embankment thrown up to exclude flood waters from the land.

Mr. Osborne. The revetments do not do any good?

Col Newcomer. Except to prevent the land from being washed into the river; that is going on very extensively, in many places.

Mr. Frear. When the Government puts in a revetment, how long does it last, that particular revetment?

Col. Newcomer. That is a very indefinite proposition.

Mr. Frear. Well, I should say, on the average?

Col. Newcomer. I think they figure that the revetment work will require on the average about two per cent annually for repairs.

Mr. Frear. Will that be sufficient to maintain it?

Col Newcomer. They expect it to be sufficient. A great deal of the revetment, of course, becomes covered up by the accumulation of the deposits, and it practically would remain there indefinitely. It depends upon the local changes in the river. If there are any marked changes, so that the attack may be brought directly against the revetment, then, of course, you may expect trouble and repairs.

Mr. Frear. Does not that occur rather frequently?

Col. Newcomer. It does still occur rather frequently, because the river is so largely uncontrolled. But as you continue the revetment and get it more completely under control, we expect to minimize that very much.

Mr. Frear. That condition of the river like the Missouri River

occasions attacks of the stream upon the revetment?

Col. Newcomer. You will always have considerable expense for maintenance. That is one of the points Col. Deakyne brought up.

Mr. Frear. The maintenance of revetments?

Col. NEWCOMER. Yes.

Mr. Frear. Speaking about the 500,000 acres to be reclaimed, there are 20,000,000 acres, in general figures, along the lower Mississippi. Of course, there a contribution of one-third is made.

Mr. Booher. The contribution of the lower Mississippi does not go

to revetment work?

Col. Newcomer. Very seldom. There has been this year a contribution to one piece of revetment work that was considered essential to hold a part of the line of levees in the upper Yazoo River district. The commission had allotted all of its funds to other urgent work and the levee district supplied the balance required for this particular

piece of revetment. That very seldom occurs.

Mr. Booher. I know, in all our investigations and hearings on the lower Mississippi River, the amount contributed by the people has always been to the levee work and nothing for revetment. On the Missouri River, from Kansas City down, there is this difference: The Government does not do any of the levee work at all, and so the commission decided to leave the levees up to the people. They are building the levees and keeping right up with the improvements of the river, and nobody could be heard to say revetment work does not protect at all. It does protect it.

The CHAIRMAN. It prevents erosion and caving in.

Mr. Booher. I have always taken the position that it is the duty of the Government to take care of that land along the river or else declare the river nonnavigable and let the people have it, one or the other. If I had the money to do these things, I would be very glad to have control of the river.

Mr. Frear. One other question—it may not be pertinent. The revetment on the Mississippi River is undertaken by the Government. Does this contribution of one-third made under the flood-control bill

also bear on the revetment?

Col. Newcomer. No, sir; to the levee construction.

Mr. Frear. But does the Government undertake all the revetment on the lower Mississippi?

Col. Newcomer. Yes, sir.

Mr. Frear. What is the estimated cost of putting in that revet-

ment along the lower Mississippi, do you remember?

Col. Newcomer. The entire fixation of the channel on the lower Mississippi is a very big proposition. I think it is estimated at something like \$90,000,000 or \$100,000,000.

Mr. Frear. \$225,000,000 was the figure, was it not, in the reports

by the engineer for revetment?

Col. Newcomer. I do not recall that.

Mr. Frear. Maybe that includes the levee.

Col. Newcomer. I think, Mr. Frear, that must have been for the 14-foot project—something like that.

Mr. Frear. I think it came about by improving with revetments.

Col. Newcomer. That is a very expensive proposition, and I do not understand the Government has embarked on that as yet. We are only building the revetment that is required for protection of some harbor front, a town, or some important levee line, or to prevent a cut-off.

Mr. Frear. One quarter is to be set aside for revetment work. Is

not that about the proportion?

Mr. Kennedy. It costs more to build the revetment on the lower

Mississippi on account of the water being so deep.

Col. Newcomer. Oh, yes; the revetment on the Mississippi costs between \$30 and \$40 a linear foot of bank, while on the Missouri it costs about \$12 or \$15.

Mr. Booher. Just about one-third as much?

Col. Newcomer. Just about one-third as much. Some of it is less

than \$12—\$10 or \$12.

Mr. Booher. You asked me how long this revetment work lasted. I think the first revetment work was done opposite St. Joe, on the Kansas side, and to my knowledge it has been there 40 years, and it has had very little repairs. Immense trees have grown up through it and formed a new bank. Sometimes it is covered for miles in length and very deep with sediment that is always deposited when we have an overflow, and I do not see how it can ever wash that out after it is covered unless the river cuts in behind.

Mr. Frear. I have discussed with men who have been not only up the Missouri River to investigate but men engaged with bridge construction for railways across the Missouri River, and they say this—and the Colonel can correct me if it is a wrong statement—that the river undermines the piling in places and sometimes goes down to a very great depth, throwing the piling out of the river and also takes out all the foundations that have been made there. I do not doubt it is as you say in that particular locality; maybe that is not subject to the immediate force of the water.

Mr. Booher. It used to be subject to the force of the water, because it cut into those banks with tremendous strength, and acres upon acres of land went into the water. You might live in Missouri to-night and to-morrow morning you would be living in Kansas. You would not have time to get your house out of the way, and the house would go along with the land. It is a very treacherous stream. The soil is

sand, and there is nothing to hold it. There is very little gumbo land along that river bottom anywhere, and for that reason it is very hard work to maintain your levees. They just cut out and go away by the mile, and move back, and the people just quit trying to do anything with the levee work.

Mr. Osborne. They follow revetments with the levee work?

Mr. Booher. Yes, sir.

Mr. Osborne. I agree with Judge Booher that the Government ought to take care of its own navigation, but where incidentally it results in great advantage to the local and private interests I do not believe we ought to refuse to do work because it is going to do somebody good. I do not think that is a reason for declining. But I do think that the local interests really ought, where they are receiving tremendous advantages, to be willing to help out.

Mr. Frear. They do in your country.

The Chairman. Why is no estimate made for other sections from Kansas City to Sioux City and from Sioux City to Fort Benton?

Col. Newcomer. That is on account of the funds on hand being

sufficient for the work up there.

The CHAIRMAN. Why are no estimates made for the Kansas River, Kans.; Osage River, Mo.; and Gasconade River, Mo.?

Col. NEWCOMER. For the same reason, the available funds are considered sufficient to provide for the needs during the next fiscal year.

Mr. Dupré. Wherever there is no recommendation for maintenance. it is for the same reason you have just given in regard to these streams, that you have sufficient funds available; that accounts for those blanks under the head of maintenance?

Col. Newcomer. Yes, sir. .

The CHAIRMAN. Nashville (Tenn.) district, the first item for which estimate of appropriation was made is the Cumberland River, Tenn. and Ky., above Nashville, \$5,000 for maintenance. you explain the condition of the Cumberland River as to the status of the work and also why a larger estimate was not made for both sections?

Col. Newcomer. The improvement so far as authorized on the Cumberland River above Nashville provides for canalization from Nashville to Carthage—all that work is completed; also one lock and dam to form a pool at the head of the river, near Burnside, constructed. There is a favorable recommendation before Congress for canalizing the intermediate portion of the upper Cumberland, but that has not yet been authorized. This \$5,000 estimated for maintenance on the upper Cumberland is simply for the usual annual. snagging that is required to accommodate the commerce there.

Below Nashville the funds in hand are sufficient to prosecute during the coming fiscal year the work of canalization that is in progress there. The locks and dams A, B, and C are substantially complete and work is progressing on D, E, and F. There will be those six locks

and dams below Nashville.

Mr. Kennedy. Is it contemplated that the amount estimated to complete, \$284,000, will finish the lock-and-dam system in that

Col. Newcomer. Yes, sir.

Mr. Frear. I notice there is no estimate for that new project above Mashville.

Col. Newcomer. That is because it was not authorized.

Mr. Frear. That is the four and a half million dollar project?

Col. Newcomer. That is not authorized; it was in the bill.

Mr. Frear. It passed the House and was killed in the bill before it got through the Senate.

Col. Newcomer. Yes, sir.

Mr. Dupré. Appropriations under the river and harbors bill become immediately available on the passage of the act, without regard to the fiscal year?

Col. Newcomer. Yes, sir; and the money remains available until

expended. It is not appropriated simply for the fiscal year.

The situation on the Cumberland developed in this way: First, you have the two commercial points, Nashville and Burnside. 'Nashville was, of course, the great commercial center on the Cumberland, and locks were first built adjoining Nashville, with the idea of accommodating the traffic to Nashville. The Louisville & Nashville Railway favored Nashville in its rates and, of course, some of the traffic brought to Nashville was transferred to the Louisville & Nashville Railroad. So the first improvement was made extending down the river and up the river from Nashville, and then on the upper river there was quite a commerce, which naturally went to the railroad where the Queen & Crescent crosses the river at Burnside. That commerce was very insistent in asking for help, and Lock and Dam No. 21 was put in to pool the river at Burnside. In the first place, it afforded a harbor there which would give them all the year transportation within its limits and by getting rid of some of the worst shoals would enable them to carry river traffic some distance below No. 21.

Mr. Kennedy. That was a project to get the traffic to the railroad. Col. Newcomer. Yes, sir; practically so. It was to accommodate a traffic on the river which went to the railroad.

Mr. Dempsey. How many locks are there between Burnside and

Nashville?

Col. Newcomer. Originally 21 were projected, and there have been 7 built, so that would leave 14 to be built according to the original plan, but the studies made since then have reduced that number. The additional number now proposed is 10.

Mr. Dempsey. Ten still?

Col. Newcomer. Yes, sir; to fill the gap. The present slack water extends above Nashville as far as Carthage, which is about 125 miles.

Mr. Frear. In that connection I read Col. Newcomer's opinion in the report, and I want to ask if there are any conditions there now that are more favorable than they were at the time these examinations were made and as to the possibilities of commerce?

Col. Newcomer. I do not understand there have been any substan-

tial changes in the situation since that time.

Mr. Frear. There has been a loss of about 40 per cent during the

last two or three years.

Col. Newcomer. I think that country is undoubtedly developing to some extent. They probably are having some increased production or other to take the place of timber. At present the timber products tend to diminish from year to year.

Mr. FREAR. This entire commerce has decreased 30 or 40 per cent, outside of sand and gravel.

Mr. Dempsey. Would not the enormous increase in the demand for lumber and coal give a very much better outlook for this summer?

Col. Newcomer. This proposition is not really a coal proposition, I am sorry to say. The coal is on the Cumberland River above Smiths Shoals and could not reach slackwater if provided. would have to canalize above Burnside in order to get to the coal. There have been, I think, on a few occasions, some coal brought down over those shoals to Burnside, and that is one of the propositions that this pool that Dam No. 21 provided at Burnside would be used to a certain extent in that way, as the pool at Pittsburgh was used to harbor the coal waiting a favorable state to take it down, but, as a matter of fact, the Smiths Shoals are very difficult shoals, much worse than any other place on the Cumberland River, until you get to the falls away above, so steep, in fact, that there was a proposition a few years ago and authority of law was given for the development of power there by private interests. It was expected at that time, I think, that they could utilize about 100 feet of fall they have there and develop power, possibly for the electricification of the railroad or for some industrial use that might arise, but the financial interests that proposed that have actually never taken it up. I do not think that this project should be based upon the coal output at all.

Mr. DEMPSEY. How about lumber?

Col. Newcomer. Of course, there is more or less of that. There is considerable lumber there still, and that country has good agricultural land, and has very considerable products seeking outlet. They now have to drive stock and haul products long distances.

Mr. Dempsey. Is this virgin timber country that has not been cut? Mr. Kennedy. The report says the best timber has been cut off, and sets that out as the cause of the decrease in commerce—"The upper Cumberland having been depleted of its best timber."

Col. Newcomer. I think you will find still some virgin timber

there.

Mr. Switzer. I received this morning a statement from a gentlemen at Cosden, W. Va., named Lewis, which, if correct, shows that they have sufficient cars provided by the Chesapeake & Ohio Railroad for the month of December to the mines tributary to that railway. We mine 2,500,000 more tons a month, or 30,000,000 more tons in a vear at that rate. What is true of that railroad is true of at least nine-tenths of the other railways of this country, the big systems. the other day was confronted with this sort of a proposition; I went to the Fuel Administration—I have a very high regard for it-but people of my vicinity, in one of my counties, were about to lose a little railway that accommodated 8 or 10 small coal mines, and I wanted to get an order from the War Department or Fuel Administration to prevent the men that bought it from tearing up the track. because the mines along this railway had been furnishing a camp at Chillicothe, Ohio. But I was promptly told they did not see any necessity of holding that railway in there or building other railways to coal mines, unless they had more cars. The great trouble was there was not sufficient cars placed at these mines to keep them running.

Mr. Dempsey. Is the idea to tear up the railways we have and then start all over?

Mr. Switzer. That is true; but I know it to be a fact, and the truth of the matter is, around these coal mines in West Virginia and in a good deal of the State of Pennsylvania and down in Kentucky, at least one-third to a half more men are around these mines than they have any use for; that is, the mines are not running more than two or three days a week for the reason that there are not cars to fill, and I am of the opinion that the administration will have to look after this labor proposition. That is true on the Kanawha River; they have had half again as many men there as needed, so far as supplying the coal traffic with equipment is concerned.

The CHARMAN. Is this true with regard to mining coal under present conditions, that the cars must be there while the coal is brought out—they have no means of storing it or accumulating it

awaiting cars?

Mr. Switzer. If you were not raised in the coal regions, you would not understand that the expense of hauling coal out of the mine and storing it, throwing it out on the ground or putting it in warehouses and then reloading it is so great that it would not be possible to mine coal in that way and people would not want to pay the price for the coal that was mined in that way. In order to mine coal profitably, it ought to be done on a large scale, where you have large veins, and you must have your cars at your tipple under what they call running the coal out of the mine, and if you have a big mine and a hundred or two hundred cars and they load those, but for a day or two days no more cars are brought in the most of the men at those mines are idle until more cars come in, because there is no place to put the coal. If it is loaded in the little bank cars and run out on the tipple and dumped somewhere, the expense of rehandling would make it beyond the reach of the consumer.

Mr. Dempsey. Did the Fuel Administration say that the proper remedy for scarcity of cars was to tear up the tracks of existing rail-

roads instead of supply cars for them?

Mr. Switzer. I am not at all in love with the policy of the Fuel Administration, but, so far as this little project I was interested in was concerned, they probably were about right. But since then

there have been arrangements made to hold that track.

The CHAIRMAN. Chattanooga (Tenn.) district: The first item of appropriation there is for the Tennessee River above Chattanooga, \$160,000, for further improvement and maintenance; also, in the same district, Tennessee River, Chattanooga to Riverton, \$40,000, for further improvement; and the Tennessee River below Riverton, \$15,000, for maintenance, and \$128,000, for further improvements. Colonel, we will be glad to hear from you about that river, its several sections and status, and whether these items so estimated are sufficient.

Col. Newcomer. Each of those three items is explained in the annual report. The \$160,000 requested above Chattanooga is to continue work on open-channel improvement. It is expected the funds on hand will complete the work at six of the important shoals and begin work on three others, and this \$160,000 is to continue work on those three additional shoals, which will be undertaken with the funds on hand. The \$40,000 from Chattanooga to Riverton is to

provide the project depth at the lower approach to the Hales Bar lock and dam. That dam, you will recall, is a power dam, built by private interests, the Government simply providing the lock gates, and the machinery for operating the locks, and this is to provide an adequate approach at the lower end of that lock. The \$15,000 for maintenance is required in addition to funds on hand.

The CHAIRMAN. That is in the Tennessee River below Riverton? Col. Newcomer. That is in the Tennessee River below Riverton, and is for removal of shoals occurring from time to time. The \$128,000 item is a new item which has been submitted this past year by the district engineer to complete the work of improvement on the lower Tennessee. It was expected that the funds already provided for improvement there would complete the project, but there have been considerable increases in cost of work, and it is found that there are a number of small shoals, none of them large items, but they aggregate this sum of \$128,000 as estimated cost for completion. We have the necessary plant there, and we think it is advisable to go ahead at once and complete that project.

Mr. Kennedy. What depth do you have there?

Col. Newcomer. That is 5 feet at extreme low water, or substantially 6 feet at ordinary low water.

Mr. Kennedy. Do you remember how long a reach that is?

Col. Newcomer. Two hundred and twenty-six and one-half miles—that is, below Riverton.

Mr. Frear. Colonel, referring to your memorandum that you have opposite the Tennessee River above Chattanooga, "Lands have not been secured for Caney Creek Lock and Dam," will you tell the committee what is that "Caney Creek Lock and Dam"? There has been a good deal of trouble there, has there not; that is, differences

with the people locally?

Col. Newcomer. The situation is this: The approved project for the upper Tennessee provides generally for open-channel improvement, but for that one lock and dam at Caney Creek Shoals. It was expected that that lock and dam would pool a portion of the Tennessee, the lower portion of the Clinch and of the Emory River up to the coal fields in the vicinity of Harriman. It was found upon preparing the plans that there would be considerable land overflowed which had not been included in the original estimate of cost. That estimate of overflow damages became so large—something like a half million dollars—that we substantially came to the conclusion that the dam should be omitted, the expense was so great and the advantages would be relatively incommensurate with the expenses, so that there has been a recommendation made to Congress to omit that lock and dam

Mr. Frear. At Caney Creek?

Col. Newcomer. At Canev Creek.

Mr. Frear. That is not suggested here. It is suggested the matter is still pending and efforts are being made to secure the land.

Col. Newcomer. You will find in the recommended modification

of the project—

Mr. Frear (interposing). A protest went up from those people there did there not?

Col. Newcomer. On page 1214 you will find, under the paragraph Recommended modifications of project." "It has been recommended

that project for the Caney Creek lock and dam be abandoned, and that the project for open-channel work be modified," as given there.

Mr. Frear. That modification is to cost \$1,000,000?

Col. Newcomer. No; not the modification; but it is estimated to be the cost to complete—the cost of the lock and dam, I think, is estimated at something over \$2,000,000, and by omitting the lock and dam you would substantially save about \$2,000,000.

Mr. Kennedy. I notice the commerce there, Colonel, has fallen off,

1916 to 1915, both in tonnage and in value?

Col. Newcomer. Yes, sir; that has occurred at quite a number of points.

The CHAIRMAN. Since the war?

Col. NEWCOMER. Yes, sir.

The CHAIRMAN. Colonel, while it is apparent, I will ask you the question: Why no estimates are made for the Clinch River, Tenn. and Va., and for Hiwassee River?

Col. Newcomer. The work on the Hiwassee, the navigable portion of which is short, but used more or less, is practically complete, and no amount is deemed necessary for maintenance. On the Clinch River there is practically no commerce, except rafting of logs.

The CHAIRMAN. We now come to the Ohio River estimate for construction of locks and dams, \$5,000,000. I will ask the colonel to explain, with some completeness, the status of the work of construction of locks and dams on that river and the work contemplated with the

amount available, including this proposed appropriation.

Col. Newcomer. You will notice that in this instance there has been put in the committee book quite a complete statement of the situation, a table taken from the annual report, showing the completed works and the percentage of completion for other works in progress. This item of \$5,000.000, as you, of course, recall, is the regular annual appropriation that Congress has been making for this improvement, upon the basis of completing it within a period of 12 years. The work now has made very substantial progress. The funds in hand will practically complete the canalization from Pittsburgh down to Lock and Dam No 29; that is, in the neighborhood of Portsmouth, Ohio.

Mr. BOOHER. Above or below Concinnati?

Col. Newcomer. Above Cincinnati. Dam 37 is the one that pools the harbor at Cincinnati. We considered this project one on which, in view of the increasing importance of furnishing all possible means of transportation in that region of very intense industrial activity, the work should proceed at the full rate which Congress has authorized. Every additional lock and dam that we get in there now, of course, simply extends so much further a system which has already served a considerable territory. It is true that a number of those locks and dams are still not complete. The present situation, as I say, is shown in this table. The work is now practically completed down as far as the Muskingum. In order to complete to the Kanawha, which is pooled by No. 26, we would have to complete several dams that are still in progress there, Nos. 21, 22, 23, 24, and 25. We asked Col. Beach for a special statement covering the situation on the Ohio, and I think it would be best just to read that to the committee and probably incorporate it in the hearing, because it

sets forth what is expected to be accomplished with the present funds and the funds that we ask for. [Reading:]

WAR DEPARTMENT,
OFFICE OF THE DIVISION ENGINEER, CENTRAL DIVISION,
Cincinnati, Ohio, November 10, 1917.

From: The Division Engineer, Central Division.
To: The Chief of Engineers, United States Army, Washington. D. C. Subject: Estimates, Ohio River improvement.

- 1. The following statement is submitted in response to department letter of October 17, 1917 (E. D. 15944), concerning estimates for Ohio River appropriation.
- 2. With funds previously appropriated and those provided by the river and harbor bill of August 8, 1917, it is expected to complete Dams 16, 17, 21, 22, 23, 24, 25, 31, 33, 35, and 39, as well as to procure site for repair station at Marietta. It had also been hoped to complete Dams 41, 43, and 48 with funds now available, though it appears probable that small additional allotments as indicated below will be required for those dams. In the case of No. 43, however, any additional allotment required will be more than offset by credits accruing to that work from plant purchased for that dam and which can be transferred and utilized elsewhere upon completion of the structure. With the present allotment of \$805,000 to the fixed dam at Emsworth it is proposed to purchase site and construct masonry of locks and guide walls. The funds now available at No. 27 are expected to be sufficient to construct the masonry of the lock and guide walls, provide the metal work for weir and pass, erect the power and lock-keeper's houses, and provide for practically all machinery, as well as the maneuver boat and the movable parts for dam, including bear-trap leaves.
- 3. The item of \$5,000,000 for which estimate is made in the current annual report will be applied to—

Completing fixed dam at Emsworth	\$700,000
Procuring and installing equipment, etc., in repair shops at Marietta_	50,000
Completing Dam No. 27	376,000
Completing Dam No. 41	43,000
Completing Dam No. 43	129,000
Completing Dam No. 48	50,000
Making additional borings at certain sites to obtain more precise data	
concerning foundation conditions	20,000

Fotal \_\_\_\_\_\_ 1, 368, 000

With the balance of \$3.632.000 from the expected appropriation of \$5,000,000 in the next river and harbor bill, work will be commenced on Nos. 30, 32, and 34, following the approved plan of construction in serial order downstream, thus leaving but one additional dam (No. 36) to be provided for in addition to funds required to complete Nos. 30, 32, and 34 to extend slack water from the head of the river to Cincinnati. The completion of the three dams just mentioned will provide slack water for the important industries, including blast furnaces, steel mills, and rather extensive lumber mills and brickyards at or in the vicinity of the towns of Ashland, Ironton, and Portsmouth, and will render practicable the transportation of coal from the Kanawha fields to Cincinnati at all times of the year by the creation of a very small flushing wave to secure the effect of a dam at the site of No. 36.

- '4. It will be seen, therefore, that with funds at present available and \$1,368,000 of the expected appropriation of \$5,000,000 all work in the Pittsburgh and Wheeling districts can be completed, as well as all dams in the first Cincinnati and Louisville districts now under construction.
- 5. This office can not urge too strongly the total appropriation of \$5,000,000 asked for, as the past season has indicated the necessity for completing the slack-water improvement of the Ohio River at the earliest practicable date. Were the improvement completed only as far as Cincinnati, the present serious coal situation in this locality would not exist, and not only would the present great handicap on production be largely removed, but manufacturers and others would be enabled to move large quantities of freight, impossible at present owing to congestion on the railroads. The part of the improvement thus far completed has been of great assistance in affording relief by means

of artificial rises, to coal tows from the Kanawha River in passing over the unimproved section of the river above Cincinnati, but this should not be relied upon indefinitely, as navigation in the upper pools is to some extent inconvenienced and interfered with whenever it becomes necessary to draw down the stage of water in those pools to give assistance below. Manufacturers and shippers generally, as well as chambers of commerce, etc., are beginning to see the possibilities of an improved Ohio River and numerous inquiries are being received for information concerning terminals, etc., indicating an interest in the river and a determination to provide necessary and adequate facilities for its utilization whenever a continuous navigable stage shall have been provided.

Lansing H. Beach, Colonel, Corps of Engineers.

Col. Newcomer. I may state, Mr. Chairman, also that the information you requested some little time ago about terminals on the Ohio River has just come in and was transmitted to you by letter this morning.

Mr. Kennedy. Colonel, how many dams have been completed

below Cincinnati?

Col. Newcomer. No. 37 pools Cincinnati; No. 41 is complete as to the dam, the canal is being enlarged and an additional lock being built. Of course there was a lock there before, so that they have substantial traffic facilities there now. There are no others completed. Nos. 43 and 48 are in progress and No. 39 is in progress.

Mr. Kennedy. What was the purpose in building those dams

down there?

Col. Newcomer. The first program of construction was to provide first for harbors at the principal commercial points, the first one being built at Pittsburgh; No. 13, at Wheeling; No. 26, to pool the mouth of the Kanawha; No. 37, at Cincinnati; No. 41, at Louisville; and No. 48 to pool the mouth of the Green River and furnish a harbor for Henderson and Evansville, where it was considered very desirable to afford a point for collection of traffic, particularly in the winter. They can get refuge in the Green River, which is prac-That policy of building the detached dams was tically ice free. pursued until the principal commercial points were provided with locks and dams, and then we took up the program of building alternate dams going down stream, because by having the alternate dams, with a little dredging in between, you could provide for packet-boat To get the full project, those intervening dams would have to be put in, and now we are doing that. The question of providing additional dams below No. 48 is being studied very carefully, with the probability in view that we will not want to build below No. 48. You will recall that 54 locks and dams were originally contemplated?

Mr. Kennedy. Yes.

Col. Newcomer. But on the lower river it is probable that dredging should be used rather than locks and dams. In the first place the natural channel facilities are much better there. They have much greater volume of discharge on account of the great number of tributaries that come in, and also it is a much more expensive proposition down there to build locks and dams on account of the much wider river and the poorer character of foundations.

Mr. Kennedy. Do you recall what the estimated cost of maintenance of the Ohio River was in the report on the lock and dam

system?

Col. Newcomer. I think it is in the neighborhood of \$1,000,000.

Mr. Frear. The statement shows that \$6,967,000, or practically \$7,000,000 is on hand. You have asked for \$5,000,000 more in this bill, or over 25 per cent, or one-fourth of the amount that is estimated to go into the bill for this one project. Do you believe that the importance of this project calls for that expenditure at this time?

Col. Newcomer. Yes, sir; I do.
Mr. Frear. We have spent on this river \$43,000,000. I have forgotten what the total appropriation is—somewhat larger, as I understand it. What is the total appropriation—\$59,000,000 or thereabouts?

Col. Newcomer. Of course, adding together the expenditures and the outstanding liabilities and the amount available, would give

vou that.

Mr. Frear. \$51,000,000, and the amount to complete is \$28,000,000, or something like \$75,000,000 or \$80,000,000. What has been the increase or change in commerce, if any, since this project was first undertaken, or can you tell?

Col. Newcomer. I do not think there has been any substantial

change.

Mr. Frear. What will be the character of the commerce, as estimated, when the project is completed; that is, where will the increase

come, where will the commerce travel, what way?

Col. Newcomer. It will be largely in the interchange of industrial products along the stream. When the project was undertaken the principal traffic on the Ohio River was in coal. Of course, there was a considerable traffic between local points also, as, for instance, between Cincinnati and Louisville, but the main item was coal. Coal traffic has practically disappeared, so far as shipments from the Pittsburgh district are concerned. We still have considerable coal traffic out of Kanawha River, and that will probably continue.

Mr. Frear. To what points?

Col. Newcomer. To Cincinnati and other points lower down on the river.

Mr. Frear. Is there much commerce down in the lower part of the river in the nature of coal shipments?

Col. Newcomer. It is not heavy now.

Mr. FREAR. Will there be any when this project is completed, in

your judgment?

Col. Newcomer. I think you will have considerable coal from the Kanawha field and possibly from some of the fields lower down the river. It looks now as though the product of the Pittsburgh coal field will largely be consumed in the Pittsburgh district, and that commerce which has hitherto moved on freshet stages, because that was the only time there was sufficient water to take out the coal barges, will be replaced, if we are going to have a commerce there of any moment by traffic carrying the industrial products of that region. Of course, there are enormous shipments of steel products and other industrial products along the Ohio River to all parts of the country.

Mr. Frear. That is by rail?

Col. Newcomer. Now by rail, and it is expected much of that will be carried by water.

Mr. Frear. To what points?

Col. Newcomer. Going to the west; to all points on the Mississippi River, for instance.

Mr. Frear. Are there any shipments of that kind to-day?

Col. Newcomer. There are shipments of steel products. I think the Steel Corporation has been sending some of its steel down to Louisville and to Memphis by river.

Mr. Frear. On the Mississippi?

Col. Newcomer. Yes, sir. There have been cases I know in the past where persons buying pipe, for instance, in large quantities, have wanted to have it shipped by river, but the Steel Corporation would not ship it that way. They had an understanding then that their products would go by rail.

Mr. FREAR. What was the reason for that? They had contracts

with the railroads; is that the reason?

Col. Newcomer. I do not know just why. Possibly the interlocking of interests in the Steel Corporation and the railroads led to it, but that was the policy at that time. Now the Steel Corporation has gone quite extensively into barge construction for handling its own products.

Mr. Frear. They build barges?

Col. Newcomer. Yes, sir. So there has been quite a change of attitude.

Mr. Switzer. I call your attention to the fact that there is quite a coal trade on the Ohio now being supplied by the Highland Coal Co., about 40 miles below Kanawha. They have a terminal and can load several thousand tons a day, but it is not as big as the Monon-

gahela production.

The Chairman. If cities and localities will cooperate fully in the establishment of water transportation lines on the Ohio and in the construction of water terminals which are adequate in every respect, when the improvements on the Ohio shall be completed, it ought to be very much enlarged by that class of traffic which is carried partly by water and partly by rail. It is a long river, and the cost of traffic movement can be very much reduced on the river, and shippers where the respective terminii is on the river and in the interior can utilize the Ohio River and thereby reduce the rates of movement, and one of the purposes of this attitude of the committee in insisting upon the construction of terminals and the establishment of water lines will be to get that situation when the river is completed. That is the class of coordinated traffic between the railways and the Ohio River which at this time is not large. They are practically not prepared for it.

Mr. Frear. A large portion of the commerce on the Ohio River of this 6,000,000 tons is sand, over one-third hauled only a short distance—12 and 13 miles. Then, too, comes coal, which is hauled comparatively a short distance, and possibly outside of that the commerce is small compared to the enormous expenditure, and I was coming to the point that the chairman has well stated. What would you say, Col. Newcomer, is the average length of haul, as near as can be ascertained from the records that you have there? For instance, the haul on the upper Mississippi River is something less than 15 miles this year on the 700-mile stretch. What is the average haul on the Ohio, where the distance is about 1,000 miles? I will say this, that from Lock 1 to Lock 10 the average haul, as I now remember, is something like 14 miles, but there is nothing to indicate very clearly below,

downstream and upstream. It says 27 miles average haul either up or down, and 28 the other way, according to my recollection, but how can we ascertain the average haul of the commerce that makes up this 6,000,000 tons you have in the record?

Col. Newcomer. This table is supposed to be a consolidated table

for the whole river.

Mr. Frear. Then the average haul for the whole river is about 28

miles for the 1,000-mile stretch?

Col. Newcomer. Yes, sir; that is given there for the downstream commerce, and the upstream is given as about 26 or practically 27 miles.

Mr. Frear. There is another table you are familiar with, on page 2914. That gives the commerce of the first 10 locks and shows the average distance as about 15 miles.

Col. Newcomer. That traffic is mainly in the short distance in the

Pittsburgh district.

Mr. Frear. Those others relate to the stream at large; the 28 and

29 miles cover average distance hauled?

Col. Newcomer. Yes, sir. I might state that there are very extensive steel plants below Pittsburgh that are now accommodated by the pools formed. The Alaquippa and the Midland steel plants now rely upon the river almost wholly for their coal supply, and they consume very large quantities of coal.

Mr. Frear. You are speaking of the improvement of the lower river. What as to the question of necessity of building extra locks down there, when the largest part of the traffic is on the upper part

of the river?

Col. Newcomer. Yes, sir; Louisville and above.

Mr. Kennedy. Have you figured out that the maintenance charge for open-channel work will be less than if you built the locks and dams on the lower reach?

Col. Newcomer. It is expected that the maintenance charge would be less than the interest on the cost of construction and the cost of maintaining and operating the locks and dams.

Mr. Kennedy. It would be a saving in the long run?

Col. Newcomer. That is the expected situation. We have not come to a final conclusion about the matter yet.

Mr. Frear. How many locks were in this plan originally?

Col. Newcomer. Fifty-four.

Mr. Frear. And that is the largest number that has been considered?

Col. Newcomer. Well, they considered more for the 6-foot project. But for the present project 54 was the number. That has already been reduced definitely by omitting one lock and dam just below Louisville, No. 42, and it is expected that No. 40, just above Louisville, will be omitted by raising the dam at Louisville instead of building another lock and dam above. And then, of course, if we omit the six below 48, there will be a further reduction of the number.

The CHARMAN. Without objection, we will include in the record of the hearing these printed remarks and also the table at the bottom of page 29 of the committee book; also report from the Cincinnati (Ohio) engineer office on water terminals along the Ohio River.

(The reports referred to by the chairman are as follows:)

ABSTRACTS FROM THE REPORT ON THE OHIO RIVER IN THE ANNUAL REPORT OF THE CHIEF OF ENGINEERS, UNITED STATES ARMY, 1917.

Condition at the end of fiscal year.—At the close of the year there were completed, or practically so, and in operation 21 locks and dams, and there was in addition an old lock (No. 41) at the lower end of the canal at Louisville, Ky., built many years ago but still in use to pass vessels around the Falls of the Ohio. This is inadequate in dimensions, and a new lock of size similar to the others on the river was in process of construction to accommodate the traffic of the river. The work of widening the Louisville & Portland Canal was completed. Including the new lock at No. 41, there were 15 under construction at the close of the year in various stages of progress, three of which were nearly ready to be placed in operation. Five locks and dams were placed in operation during the year. The construction of two new locks was commenced during the year. The five locks and dams (Nos. 12, 15, 19, 20, and 29) placed in operation during the year added 57.7 miles of canalized river to that available at the beginning of the year (148.5 miles), making a total of 206.2 miles available to navigation at the end of the year. There was reliable 9-foot navigation (as contemplated by the adopted project) for the entire distance, 95.8 miles, from the head of the river at Pittsburgh to Dam No. 13, just below Wheeling, the additional 110.4 miles of river project depth being provided by pools 15, 18, 19, 20, 26, 28, 29, and 37. A survey of the river throughout its length was completed and the result is shown on 280 charts with an index map, all of which have been lithographed. Land had been purchased for all sites for locks and abutments at points where construction had not yet been commenced, except abutment site 45 and sites 32, 49, 50, 51, and 54. Site for a proposed repair station at Paducah had also been purchased. At the close of the year there remained 17 locks and dams whose construction had not yet been commenced out of the total (53) contemplated under the adopted project as modified.

The total expenditures under the existing adopted project to the end of the fiscal year were \$25,449,283.27, all of which was for new work.

The table herewith shows the year of completion of the locks and dams now in operation and the percentages of completion of structures at present under construction.

The following table contains information concerning various features of the locks and dams included in the existing project:

						Lock.	J.						
		Location.		· Len	Length.		Depth on miter sill.	sill.		Dam	Per- centage	Year	Estimated cost of each
	Miles below Pitts- burgh.	With reference to nearest town or other geographical division.	Clear width.	Between centers of gate track.	Between miter sills.	Lift.	Upper pool.	Lower pool.	Foundation.	foundation.	com- pleted.	pleted.	lock and da,m.¹
238888888888888888888888888888888888888	2.25	W. Bellevue, Pa.  Coraopolis, Pa.  Genosborne, Pa.  Legionville, Pa.  Revedon, Pa.  Reverdon, Pa.  Reverdon, Pa.  Midland, Pa.  Midland, Pa.  Newedi, W. Va.  Newedi, W. Va.  Seurberville, Ohio.  Seurberville, Ohio.  Seurberville, W. Va.  New Marthrishie, W. Va.  New Marthrishie, W. Va.  New Marthrishie, W. Va.  New Marthrishie, W. Va.  Hense above Marietta, Ohio.  Little Hocking, Ohio.  Bens Run, W. Va.  A miles above Parfersburg, W. Va.  Belleville, W. Va.  Belleville, W. Va.  Serland, Ohio.  Ravenswood, W. Va.  Belleville, W. Va.  Bellies above Guyandotte, W. Va.  Huntington, W. Va.  Smiles above Guyandut, Ohio.  I mile below Rome, Ohio.  Smiles above Grenupt, K. V.  Smiles above Grenupt, Ohio.  I mile below New Richmond, Ohio.  I mile above Maysville, K.  Chilo, Ohio.  Ravelle, K. Villo, Ohio.  Reveille, K. Villo, Oh		915.0 914.0 914.0 914.0 914.0 915.0 915.0 915.0 916.0 916.0 916.0 916.0 916.0 916.0 916.0	(4) (4)	######################################	291 291 201 201 201 201 201 201 201 201 201 20		Bock-gravel Brock-gravel Brock-gravel Brock-gravel Brock-gravel Brock-gravel Brock-gravel Brock-gravel Brock-gravel Gravel Brock-gravel Gravel Brock-gravel Gravel	Gravel Gravel Gravel Gravel Gravel Gravel Piles Piles Gravel Grav	86000000000000000000000000000000000000	1886 1996 1996 1996 1997 1991 1991 1991 199	25,000.00 (1.24) (2.00.00 (1.2

1, 450, 000. 00 1, 620, 000. 00 2, 960, 356. 00	4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4
49.5 0 83.9	8800008000000 1
Rock and piles Piles Rock	Piles. do. do. do. do. do. do. do. do. do. do
(4) (80 167 8.0   \$15.4   \$11.0  do   Rockand piles (7) (8.0   (4)   (4)   (4)   Rock.   Piles   Rock.   Rock	Piles. 70 Piles. 40 Piles.
\$11.0 (3) \$11.0	i eeeeeeeeee
\$ 15.4 (4) 7 11.5	# # # # # # # # # # # # # # # # # # #
8.0 6.0 9.0	00000000000000000000000000000000000000
666. 167 (4) 668. 463	\$ \$0000 000000
110 110 110 8 85	00000000000000000000000000000000000000
011 011 011 011 011 011 011 011 011 011	
1 mile above Markland, Ind. 2 miles above Madison, Ind. Louisville, Ky.	3 miles below West Point, Ky Addison, Ky Addison, Ky Between Rockport, Ind., and Owensboro, Ky Is miles below Henderson, Ky Ganlies below Henderson, Ky Finels below Mount Vernon, Ind. Caseyville, Ind. Is miles below Blanbethtown, Ill. Is miles below Blanbethtown, Ill. Is miles below mouth of Cumberland Head of Grand Chain Mound City, Ill.
	689. 680.38. 748.77. 886.71.38. 878.00. 878.00. 878.00. 862.00.
	1242873882 1243873882

\*\* For Dams Nos. 9, 10, 12, 14, 15, 16, 17, 30, 21, 22, 23, 24, 25, 27, 28, and 39 the estimated costs stated are those given in House Document No. 1159, Sixty-second Congress, third season. For the remaining dams the estimated costs stated are those given in House Document No. 492, Sixtieth Congress, first session, with the exception of Nos. 19, 41, and 43, for perfected dams; actual expenditures, exclusive of receipts from sales.

\*\*Not commenced.\*\*

\*\*Not completed.\*\*

\*\*Not com

37519-18-8

REPORT BY MAJ. JOHN STEWART, ENGINEER RESERVE CORPS, ON WATER TERMINALS AT THE CITIES AND LARGER TOWNS ALONG THE OHIO RIVER, PITTSBURGH TO CAIRO.

> WAR DEPARTMENT, OFFICE OF THE DIVISION ENGINEER, Cincinnati, Ohio, December 22, 1917.

From: Maj. John Stewart, Engineers, United States Reserves.

To: The Division Engineer, Central Division.

Subject: Water terminals at the cities and larger towns along the Ohio River. Pittsburgh to Cairo.

1. I wish to report the result of investigation of the condition of water terminals at the cities and larger towns along the Ohio River.

2. Inclosed are the reports, in duplicate, from the municipal authorities giving details of their local situations; also a compilation from the reports and my personal investigations, giving in tabulated detail the conditions that exist and

(a) That there are no municipal water terminals along the Ohio River. All terminal facilities are privately owned and are inadequate to properly provide for water transportation of any magnitude and are not constructed or equipped to care for joint rail and water transportation.

(b) Landings exist at nearly all towns and cities and at many farms, etc. Some effort is being made by the larger towns and cities to keep the levee at the public landing in condition for use. The improvements run from grading the bank or levee to improve the generally steep grade, to elaborate paving as at Pittsburgh, Pa. The grade or slope of the river bank or levee is generally steep and forms a great handicap to delivering freight to the water carrier. Where unimproved, this steep grade offers an almost unpassable barrier between shipper and boats. The municipal improvements have not been extended beyond the paving of the levee or the construction of roads or streets to the water's edge. The towns and cities have sold the privilege of their water gates for a very low rental-some for nothing. In a number of cases the business of the water carrier has been shut off by the municipalities granting unrestricted franchises to the railroads to a right of way along the water front.

It is believed that the landings have been located at points convenient to the business centers of the municipalities. They are not properly constructed or equipped to properly invite or promote water transportation, much less provide for it upon completion of the Ohio River improvements. Even under existing conditions of water traffic, proper terminal facilities would benefit the service, and if well-regulated boat lines are established the landings are inade-

quate for the proper conduct of water traffic.

The present water terminals on the Ohio River are the floating wharf boats owned by individuals and firms; some are owned by the steamboat lines. These boats are maintained at a number of the landings; many of the boats are floating sheds, while others have been so constructed that they form fair warehouses for the receipt, storage, and shipping of goods. They are not equipped with derricks, hoists, or other facilities or mechanical devices to handle freight. They can only handle package freight, live stock, etc., which can be carried or run over the landing plank by labor. This method of handling freight has proved a great handicap to river transportation, particularly as the "roustabout" and rivermen generally have practically disappeared during the last few years. The municipalities charge the wharf-boat wharf or landing rental and sometimes in addition make a landing charge against the boats that make the landing. The wharf boat obtains its revenue from landing and storage charges, freight handling, collections, etc.

Note .- "Table of Ohio River wharf-boat charges" attached hereto.

The old wharf boat, with its slow method of handling freight, greatly delaying the water carrier (which also are not equipped with mechanical devices to handle cargoes), with the steep, and in places dangerous, levee approach from the land side, discouraging producers and manufacturers to ship by water owing to the necessity of having to deliver their goods to the wharf boat under such conditions and then, perhaps, have their drays, trucks, etc., held for hours waiting on the steamer-is not conducive to the promotion of river transportation. Such equipment as now exists at the cities and larger towns is obsolete and unsuited for the business that might exist were the boats and transportation business on the river modernized, and inland waterway transportation and joint rail-and-water transportation coordinated and all properly run and regulated. The present terminals are not adequate in any way for "such traffic as will probably exist when the improvement of the Ohio shall be completed and when, as stated, inland water traffic is organized and run under proper regulation and control, similar to that now exercised over the railroads, but in a manner that will not impose undue expense in accounting, filing of tariffs,

etc., upon the water carrier.

(c) As to Congressman Small's question concerning "explanation of the failure of the municipalities or localities to provide terminals, or adequate termiyou will note that answers to this question by the municipal authorities are few; in fact, some think they have very satisfactory wharf conditions. In my personal investigations, however, several answers have stood out prominently in my conferences with the authorities, business men, and the chambers of commerce, boards of trade, etc. I give the substance of these reasons, as

1. Incomplete condition of the Ohio River improvements, which renders the reliable movement of freight by water impossible for several months of every

2. Antipathy of railroads to inland water transportation and the action taken in many cases by them to discourage and prevent movement of freight by water.

3. Lack of supervision over and regulation of water traffic, either by itself or in combination with rail traffic, as has been found necessary in the case of railroad freight movement.

JOHN STEWART.

The Chairman. Next is the Pittsburgh district. Colonel, why is

no estimate made for the Monongahela River?

Col. Newcomer. Because the project there has been completed. The funds have been provided in so far as work has been authorized, and the maintenance is taken care of by the indefinite appropriation for operating and care of locks and canal. I might say that there is an earnest effort on foot there to secure a further enlargement of Lock and Dam No. 6. The Steel Corporation is building very large coking plants at Clairton, and they are going to get their coal mainly from the No. 6 pool. You have recently authorized a new lock chamber there of standard dimensions. Most of the other locks below No. 6 on the Monongahela have two chambers, so as to provide for the traffic, which is a very dense traffic, and they want a second chamber at No. 6. It probably would be a desirable thing to do, but that matter has not yet been reported upon.

The CHAIRMAN. There has been authorization for the examination

and report on it, has there?

Col. Newcomer. I question whether there has been that. It is my impression that it would require an item in the bill or an order of the committee for review of that report.

The CHAIRMAN. Will you look at your memorandum and ad-

vise us?

Col. Newcomer. Yes, sir. It is a very important stream, and they have a very large commerce there. We notified the interests who were urging the matter upon us that there was the situation—that it would require further authority before we could make any estimate for that second lock. They are contemplating getting about 30,000 tons a day at this coking plant.

The Chairman. And that will be an increase in commerce over

and above that which now exists?

Col. Newcomer. Oh, yes, sir.
The CHAIRMAN. The first item for which estimate of appropriation is made is Allegheny River, open-channel work, \$5,000; and the Allegheny River construction of locks and dams \$500,000. Colonel, we would be glad to hear from you on these two items.

Col. Newcomer. The \$5,000 item is the usual annual cost for providing for the open channel on the Allegheny River. We have a number of regulating works that were built there in past years, which need to be maintained, and also a certain amount of snagging.

The \$500,000 item is for continuing improvement on the construction of locks and dams which was authorized several years ago, subject to the condition that the work should not be undertaken until the Secretary of War received satisfactory assurance that the obstructive bridges in Pittsburgh Harbor on the Allegheny River should be raised.

The CHAIRMAN. Will you explain the status of the matter of the

removal of those bridges?

Col. Newcomer. That matter, you will recall, was fought over a number of times. Each time, until the last, the matter was turned down by the Secretary of War upon one ground or another. Secretary Root was the first to do it. He turned it down largely on the basis that the other larger interests, which would be adversely affected, were so important that he did not believe that the commercial advantage of the change would warrant it. Then it was taken up, and it was turned down on the basis that it had already been passed upon, and therefore was a matter that should not be reopened upon the same showing; that was by Secretary Taft. Then it was taken up a third time, and I have forgotten just now the reason for the adverse decision in that case; Secretary Dickinson, I think, passed upon it. But at the last investigation, subsequent to this indication of the view of Congress that those obstructive bridges should be modified, Secretary Baker ordered the bridges to be changed, the necessary modifications made, and specifying a time within which that should be done. Of course, that order, which is being complied with, is the satisfactory assurance to him of that change, so that we have authorized the district engineer to go ahead with the appropriation of \$300,000 which has been standing idle for several years, and he is now going ahead with the preparation of the detailed plans for taking up the first adidtional lock and dam, which will be No. 4. There are already three locks and dams completed on the Allegheny River, and this enlargement of the project proposes to put in five additional.

The CHAIRMAN. How far have the changes to these bridges pro-

ceeded, and how many bridges are there?

Col. Newcomer. I think there were eight obstructive bridges there, one of which has been eliminated by voluntary action on the part of the B. & O. Railroad in connection with some reconstruction of their line. They wanted to change their bridge and voluntarily adopted the greater elevation which was contemplated. The first action under the order, I think, has been taken by the Pennsylvania Railroad. Their main line from Pittsburgh crosses the river on a two-deck structure, and they are now raising that bridge. That was really the most urgent item in the program, and it is expected that the other bridges will be altered in due course of time. The other bridges are all owned by the city.

The CHAIRMAN. Pittsburgh?

Col. Newcomer. Yes, sir.

Mr. Frear. This project has been held up since prior to Secretary
Root's time?

Col. Newcomer. No, sir. The project has been held up only since the act of 1913 that authorized it.

Mr. Frear. Yes; but from time to time, prior to Mr. Root's official

notice, has anything been done?

Col. Newcomer. There was no great pressure then for further improvement up the Allegheny River. That is, it had taken no definite shape. The commerce on the river at that time was considered sufficient to require the modification of these bridges.

Mr. Frear. That is, before Congress acted in 1913?

Col. Newcomer. Yes, sir.

- Mr. Frear. What was the difference between the condition at that time and the condition when Secretary Root said that it was not sufficient?
- Col. Newcomer. Of course, there has been a very great increase in industrial activity along the Allegheny River, and there is an urgent demand now for access to these raw materials on the stream above—large coal and limestone deposits.

Mr. Frear. Which is the appropriation that is to be used on these

improvements?

Col. Newcomer. The \$300,000 appropriated in 1913 is the first. Mr. Frear. You have a balance on hand of practically how much

there—\$320,000?

Col. Newcomer. Practically all of the \$300,000. The rest of that consists of small balances remaining from the construction of the other locks.

Mr. Frear. Is it necessary to go on with that work at this par-

ticular time?

Col. Newcomer. I think it should go on, because there is very great pressure there to get access to those raw materials, and I think that a reasonable progress should be made on that work. The district engineer sent in a very urgent request for a much larger appropriation than this.

Mr. Frear. I have no doubt that the interests want it done. But for the public at large and the General Treasury do you think it is advisable to spend this money at this particular time? Is there a

return coming commensurate with the expenditure?

Col. Newcomer. This is our judgment: That this amount would

be reasonable and fair.

Mr. Frear. What do you base it upon in order that we may get it

in the record at this point?

Col. Newcomer. That the work authorized and for which we have some funds in hand should proceed at the rate we have indicated here, \$500,000.

Mr. FREAR. Why?

Col. Newcomer. Simply to provide that navigation facility; it is urgently needed.

Mr. Frear. By whom?

Col. Newcomer. By that whole industrial district—that whole Allegheny Valley.

The CHAIRMAN. For the movement of what particular commodi-

ties?

Col. Newcomer. More particularly coal, limestone, and of course there are a number of very considerable industries along the Allegheny River. There are, for instance, glass factories, which could ship their products by this route if opened up. There are also some tile works; and, of course, the part that is already improved by locks and dams is a very highly industrial and improved district. Moreover, local interests are now being put to heavy expense to alter the obstructive bridges in order to provide for this improvement, and it is only fair that the Government should make reasonable provision for its share of the work.

Mr. Dempsey. I know personally that the glass factories are more

than doubling their capacity down in that vicinity.

Mr. FREAR. Will they ship glass by this river?

Col. Newcomer. If the river is improved, I do not see why they should not ship a considerable portion of their product by river, because they reach such an extensive territory through the existing

Mr. Frear. You mean ship glassware as a manufactured product down on the river?

Col. Newcomer. I would expect that.

Mr. Frear. Is there any glassware shipped on the river now?

Col. Newcomer. They are not reached now by navigable water; that is, the stream is not improved far enough to reach them.

The CHAIRMAN. The next item is Pittsburgh Harbor, Pa., for

which an estimate of \$6,000 is made for maintenance.

Col. Newcomer. That is simply the annual cost of maintenance of harbor. It is a very busy harbor, a place where there is apt to be a great many encroachments, and this sum is expended largely in looking after matters of that kind.

The CHAIRMAN. Colonel, why are no recommendations or appro-

priations made for the Big Sandy River?

Col. Newcomer. The department has recommended that no further work of lock-and-dam construction be undertaken on the Big Sandy and we have not asked for any additional money.

Mr. Frear. But do you not ordinarily ask for maintenance of

streams of that nature?

Col. Newcomer. Where the improvement is in the nature of locks and dams, we have that indefinite appropriation which provides for operation, maintenance, and care.

Mr. Frear. Is there anything for the open-channel work?

Col. Newcomer. Not for the open-channel work. It is only for the maintenance of improvements involving locks and dams. It is true there have been a few exceptions to that. Congress has itself in certain instances put under that indefinite appropriation open channels, like the St. Clair Flats Canal, where there are no locks and dams, but as a rule it is only improvements involving locks and dams that are maintained under the indefinite appropriation.

Mr. Frear. I do not suppose there is very much commerce on the

Big Sandy at the present time?

Col. Newcomer. Very little.
The Chairman. The Kentucky River, Ky.—I see no appropriation recommended for that.

Col. Newcomer. That improvement has been completed so far as authorized and is being maintained out of the operating and care fund.

(Thereupon, at 12.30 o'clock p. m., the committee adjourned to meet Saturday, January 12, 1918, at 10.30 o'clock a.m.)

COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Saturday, January 12, 1918.

The committee this day met, Hon. John H. Small (chairman)

presiding.
(Hon. William S. Greene, of Massachusetts, addressed the committee on the subject of the improvement of Taunton River and Pollock Rip Channel, Mass., which statement is printed in a separate document.)

Mr. Frear. Just at that point, I would like to hear from Col. Newcomer in regard to this Taunton River. I would like to get the engineer's viewpoint on this. It seems to me it would be well to find out now what their reason was for putting in the contribution

clause and whether or not they think it fair.

Col. Newcomer. I am quite willing to express my opinion on the matter as a result of the former investigation. The present project depth there appears to afford fairly reasonable accommodation to the existing traffic. The additional improvement that they desire was more for the development of the expected traffic which would handle the products of the industries of that region, which are great. These goods are now handled mainly by rail. The present water commerce is principally in coal. We felt that the advantages to the commerce in sight were doubtful as justifying the total cost of the additional improvement that they ask for; but that if the local interests were sufficiently convinced of its utility and of their intention to take advantage of it to contribute one-half the cost, the Government would be justified in furnishing the other half. In other words, the project considered simply on its own merits in comparison with other projects was hardly worthy of expending so much money out of the Public Treasury. If they would contribute 50 per cent of the cost, it would probably justify the work, as they would use it. It is substantially in the same class as the Merrimac River improvement, where we have recently made a report on carrying deep water up to Lawrence, Lowell, and those points. There also we thought it was a rather questionable proposition.

Mr. Frear. That was up the Merrimac River?

Col. Newcomer. Yes, sir. We now have the channel up to Haver-

Mr. Frear. The reason I asked that, Mr. Chairman, was purely a question of policy. Here the Army engineers have made a careful report. They present that to us, and we say we will rely upon it. Before us comes a Member, who is a close friend of mine, who is interested in the project. He says to the committee there is nothing to be added in addition to what has been said before the Board of Army Engineers, but he asks the Rivers and Harbors Committee to send it back to the Board of Army Engineers. It has not met with their approval, it seems, and we are to ask them to go over it again and see if they can't waive a condition they put in. It is apparently a criticism of their decision, providing we do so at this time. It is a question of policy whether it is advisable for us to do so in this case. The Army engineers have passed upon it; and without any additional information here before us we know these conditions-

Mr. Switzer. I am willing to give him all the opportunity he wants. I am not necessarily bound by the Board of Army Engineers.

Mr. FREAR. But the Army engineers are trying to protect the United States Treasury.

Mr. SWITZER. The best way to protect the Treasury is not to make any recommendations at all. We are not hide bound here, or bound

by any particular rule.

Mr. FREAR. If there is any additional testimony to be offered to the Board of Army Engineers, it would be different, but it is admitted here that there is nothing. We are to ask the board to change the

report or the recommendation.

Mr. Dempsey. It seems to me we have overlooked two important things: As I understood Mr. Greene, he had in mind a changed condition there. All through this country, apparently, now we are going to acquire the shipbuilding industry to a degree not heretofore considered possible. We are going to try to turn out 6,000,000 tons of shipping in 18 months. If we do that we are going to set a world's record. He says this is a locality where it is expected shipbuilding will be resumed. They used to build ships there, and now they propose to do it again; and it is a natural locality to do it.

We all know that is a natural locality. As far as the engineers are concerned, I don't yield to anyone else in my deference to them as engineers; but my experience with engineers has been that they are not business men, that, while they can express to us an opinion upon the feasibility of a project from an engineering standpoint, men around this table might be very easily much better judges of the business aspect of it and the advisability of undertaking it; and this is to be referred back to them, as I understand it, with the idea of presenting the business aspect and seeing whether or not—considering the necessities of the country as a whole—the proposition is justified; and if it is justified it is one that should be undertaken to-day in the view of present conditions.

I think you all know that Mr. Greene is a very offhand man. He is a very fine man; but what he did say—while he did say that he did not have the presentation as a lawyer in mind, he did at another point go quite extensively into that shipbuilding argument, and that is news to all of us. We know that is a very reasonable thing, and it depends upon investigation to see whether or not his statement is

justified—justified by the facts as they exist.

Mr. Kennedy. Mr. Dempsey, would a proposition of that kind be helpful? It looks to me like that would be too late, after this improvement was made; if you have got to provide the facilities, it

is going to take a year or two to do that.

Mr. Dempsex. That depends entirely on the length of the war. I don't know whether you were present when Mr. Franklin Bouillon made his talk before the committee. He made a talk there of about an hour. The first question asked him was, "How long do you think the war is going to last"? He says, "If you plan for a long war, it will be a short war; and if you plan for a short war it will be a long one." I think that is just about the situation. He said the first year France was in this war they prepared guns and ammunition on the theory that the war would be over that year. He said, "If we had prepared ammunition and guns so as to reach the Germans—enough of them, the war would have been shortened 18 months." And I think in this country we are beginning to make plans for buildings in which to install machinery, by which we ex-

pect to turn out guns. I think if that is admitted here, that we should prepare for a long struggle, this Rivers and Harbors Committee will be abreast with the other coordinated things necessary to carry on the war.

Mr. Frear. I asked the chairman the reason in view of what Mr. Greene stated. Let me ask you, Col. Newcomer, if you know of any conditions that have come about that would change the recommenda-

tions?

Col. Newcomer. Nothing has come to my attention. Of course, there might easily be.

Mr. Dempsey. In other words, you haven't given any attention to

it since you determined it?

The CHAIRMAN. We are going to take this up and hadn't we bet-

ter leave it until that time?

Mr. Frear. Yes. My thought was not to settle the matter at this time, but my idea was to ascertain the Army engineers' position. They decided what they think is for the best interest of the Government in regard to a project. Now unless there is some changed condition which calls for a reexamination when we send that back to them, it practically repudiates their position without any evidence being submitted.

Mr. Dempsey. I am perfectly willing to let Mr. Greene come here

and bring in some evidence.

Mr. Frear. That is proper, but haven't we adopted the policy that we would not have a reexamination within three years?

The CHAIRMAN. You are thinking of resurvey.

Col. Newcomer. I would like to say that we would not consider it as a repudiation, but we would simply review it to see if there had been any changes in the local conditions. We would send it back to the district engineer to find out the present situation.

Mr. Frear. In different cases I have in mind, the Army engineers have repeatedly refused to change their recommendations, but after

local pressure is brought to bear they finally yield.

Mr. Kennedy. In that connection, it occurs to me that when we sent the matter back to the engineering board that the engineering board would feel that the committee was not satisfied with their report, and they would feel like that they were expected to change their opinion if they could do it.

Col. Newcomer. I think in looking over those cases where reviews have been made you will find that we very seldom made a change in our recommendation, unless there were changes in local conditions

to warrant it.

Mr. Switzer. Mr. Frear, you are not personally always willing to accept their report. Why are you willing to accept this report? When you won't accept the other reports? What is the use of making fish of one and fowl of the other?

Mr. Frear. I haven't any case of fish or fowl in mind, for instance.

Do you know of a case?

Mr. Switzer. Well, Army engineers represent the Army. Here comes in a report here of some proposition based on a half-and-half plan, or fifty-fifty proposition. That fifty-fifty business doesn't appeal to me particularly, but if they had made the report 25 per cent to be contributed by the local community, you probably would have wanted to stick to the 25 instead of 50. Here is a Member of Con-

gress from that district, he asks that it be sent back to be reviewed and followed in the way as indicated by the engineers. shouldn't we be courteous enough to that Representative in a little matter of this kind, if he wants it referred again to the Army engi-

neers, to do so just like we treat anybody else.

Mr. Frear. I desire to be courteous, but I ask for a specific case from the gentleman who has just spoken. What is in mind is possibly the Arkansas River. We accepted that. The Arkansas River has been repudiated by Army engineers repeatedly, and we know that the man who had the most influence in the Senate of the United States put that bill through after the Army engineers had repudiated That was a matter that went through where the Army engineers had repudiated it. That is a policy I submit that ought not to be permitted.

Mr. Kennedy. If you adopt the policy suggested-

Mr. Taylor. It went in on the floor of the House by a bill from this committee.

Mr. Switzer. As far as this party pressure is concerned, unless the communities make some effort and try to bring some pressure on Congress there will never be any improvements. I don't believe any censure should be indulged in of any representative or any committee for making all the effort they can that they think will be right and just to get an improvement that they think will be for the good of the Nation. I don't see any harm of bringing pressure by the people in those communities to get anything out of Congress. We know you will never get anything out of Congress unless you do bring pressure.

Mr. Frear. I don't want to be put in the attitude of criticizing individual Members, but I do want to stand by the men that are

trying to protect the Government.

Mr. Switzer. I don't want anybody to get the idea that there is a person standing up to protect the Government. There have been people standing up to protect the Government on these other projects when, if we had had this water power developed to-day, it would be a great relief for the community. They claimed they were protecting the people. If they had been a little more liberal, it would have been a greater protection to the Government, according to my view

Mr. Kennedy. You say you like to accommodate A Member by sending it back. If you don't adopt a rule by sending it back, it looks to me like where new new developments arise it is all right to send them back, but unless they can show some new development it

is a mistake.

Mr. Switzer. If the matter was in my district or your district, you would look at it in a different viewpoint. I don't know whether I shall vote for this project when it comes up on final passage or not. Probably I will. I nearly always do, but I am trying to look at this thing from the viewpoint if it was in my district—if I were representing the people who would be personally benefited by the adoption of this project.

The CHAIRMAN. Let me make this statement, which seems advisable: We have a law authorizing the committee to refer a report of the engineering board back to the Board of Engineers for Rivers and Harbors for general review or for review on any specific phase. Before that law was passed this committee, based upon its policy to be governed by the recommendation of the Chief of Engineers, if in their opinion there was any error in the report, were required to have an examination and survey within a certain length of time, and this law permits the committee to refer back to this board of review any report with the request that it be reviewed. In other words, a rehearing, just as every court of final appeal, even the Supreme Court of the United States, any party may file a petition in that court for a rehearing, and it is so in every court of appeal in every State of the Union. It isn't regarded as a reflection upon the court to apply for a rehearing, for it is dependent upon the reasons which are given, and the court in every instance determines whether there ought to be a rehearing or not.

Mr. Frear. Isn't there always a petition in such cases, which sets forth new facts and apprises the court of newly discovered law or

facts !

The CHAIRMAN. Yes; if the committee bases upon its unwillingness or willingness, or whatever the facts may be, required in this report, should decline to adopt the report now or at any future time, without this law the only recourse would be to have a reexamination and another survey, and this law permits a review, provided the scope of the project is not enlarged in any way, and it is intended to meet conditions where for any reason, either upon the initiation of the committee, or of communities, it is believed that an error has been committed in the report.

Mr. Switzer. I would like to suggest right there, Mr. Chairman, that the different courts frequently have different views to render, and make different decisions. A good deal depends upon the court. The views they take, of course, are controlled by general rules.

The views they take, of course, are controlled by general rules.

Mr. Chairman. Of course, I take it this report, just like the final opinion of a court of last resort, would be regarded as prima facie correct, and the burden would be upon the person who says it is

not correct to show why it is not.

Mr. Frear. I want to agree, Mr. Chairman, with what has been said, and to add that as far as this engineer's report is concerned, I do not know of any reason why there should be any required. My reason in offering this is that we are asked to send this back to the same board. That is the proposition; we are asked to send it back, without any additional information being offered, so far as has been presented to the committee; just simply to review their own action without offering anything additional. It seems that by so doing we would discredit their report, and that there could be no other interpretation put upon our action. We know nothing about the facts; nothing has been presented to us; and we are asked to send it back to them to review their own action and to change it.

Mr. Dupré. Did he not say he was going to supplement his re-

marks to-day by a further statement?

Mr. Frear. I did not hear that.

The CHAIRMAN. The practice is, when there is a reference, that the board refer it back to the district engineer to advise all the parties, and then a hearing is always held, usually taken down stenographically and transcribed, and then on that he makes whatever recommendation occurs to him as right, and then he sends it back to

the Board of Engineers for Rivers and Harbors, and they consider

any new evidence presented.

Mr. Kennedy. But the practice of this committee has been that there has got to be some evidence submitted to the committee here that there has been a change in conditions before we refer it. I think that has been the practice of the committee.

The CHARMAN. If it be the pleasure of the committee, we will proceed with the hearing of the bill. The next is the Duluth, Minn., District. The first estimate of appropriation is for Ashland Harbor, Wis., \$6,000, for maintenance. Colonel, we would be glad to

hear from you in regard to Ashland Harbor.

Col. Newcomer. That is a small sum, relatively, considering the great importance of that harbor, required for annual maintenance, in addition to the fund on hand. The last appropriation provided for a slight extension of the channel in Ashland Harbor, which will use up the available funds, and this sum is needed for the annual maintenance.

The CHAIRMAN. In the same group is Keweenaw Waterway, Mich.,

with an estimate of \$15,000 for maintenance.

Mr. Switzer. Is that a point to be cut off, or something, from

Princess Point, or something?

Col. Newcomer. Princess Point is in that waterway. Keweenaw Point extends far out into Lake Superior, and this is a channel across Keweenaw Point, which vessels very frequently use under certain conditions of weather, and so on.

Mr. Switzer. Have they got that improvement yet?

Col. Newcomer. Yes; it is practically complete, and this is simply an amount for maintenance. There is a considerable sum on hand, which is all to be expended in authorized work, mainly for repairs to breakwaters at the upper entrance. The details of that are set forth on page 1336 of the annual report. That waterway, I may state, is one which has generally hitherto been maintained under the permanent indefinite appropriation for operating and care, but as it has no lock or dam in it, it was recently taken out of that class of works, and we are now submitting annual estimates for its maintenance.

The CHAIRMAN. Now, in the same group are several improvements for which no estimate of appropriation is made. Take, for instance, the Grand Marais Harbor of Refuge, Mich. Why is no estimate submitted there?

Col. Newcomer. The fund on hand is considered sufficient for its

maintenance.

The CHAIRMAN. There is no estimate of appropriation for Duluth-Superior Harbor, Minn. and Wis. What is the status of that, and

why is no money asked for?

Col. Newcomer. You will observe there is quite a large sum available there. That is mainly for the extension of the anchorage basin at the inside of the Superior entrance to the harbor. The fund on hand is sufficient for maintenance.

The CHAIRMAN. Mr. Frear, was not that improvement you wished

to ask something about?

Mr. Frear. I desired to make a brief statement that occasionally, when I have been discussing projects on the floor, it has been urged that Wisconsin has very little commerce, or that its waterway inter-

ests are not material. I simply call attention to the Duluth-Superior Harbor, which had 52,000,000 tons of commerce last year, and to the little harbor of Ashland, in my own State, which had over 10,000,000 tons last year, and the average haul is about 800 miles.

Mr. Dupré. Has it not rather been pointed out to you, Mr. Frear, that we have spent a great deal on the improvements in those harbors

and waterways, and not that there was no commerce there?

Mr. FREAR. The improvements have not been very large, and apparently all were needed. Ashland has had \$623,000 spent on it, and its tonnage was over 10,000,000 tons last year, whereas on the lower Mississippi the Government has spent \$100,000,000 without producing one-tenth of the Ashland commerce.

Mr. Dupré. Comparisons are odious.

The CHAIRMAN. Port Wing Harbor, Wis. There is no estimate for

an appropriation there.

Col. Newcomer. That is a case where we do not think any profitable expenditure can be made in addition to the available funds. Very little is on hand. It has very little tonnage. It is practically a harbor of refuge for small boats. The existing appropriation will probably be sufficient for the next year.

The CHAIRMAN. Ontonagon Harbor, Mich. There is no estimate

for an appropriation there.

Col. Newcomer. The fund on hand in that case is considered to be sufficient.

Mr. Frear. May I ask a question? In view of the large amount of money that has been spent there by the Government, what is the reason the commerce has dwindled down to such a low ebb as 2,000 tons?

Col. Newcomer. At one time it was an important lumber port, and the lumber has been practically cut away.

The CHAIRMAN. You are speaking now of Ontonagon Harbor?

Mr. FREAR. Yes.

The CHAIRMAN. You started to make a comment as to Marquette Bay Harbor of Refuge, Colonel.

Col. NEWCOMER. The work is in good condition, and no additional

funds are needed.

The CHARMAN, Marquette Harbor, Mich.?

Col. Newcomer. The same applies to that. The funds on hand are sufficient for the work.

The CHAIRMAN. And Grand Marais Harbor of Refuge, Mich.?

Col. Newcomer. You mentioned that first.

The CHAIRMAN. I do not think the stenographer got your comment on it.

Col. Newcomer. The funds on hand at Grand Marais Harbor of Refuge are sufficient to take care of the needs for the next fiscal year.

The CHAIRMAN. We come now to the Milwaukee, Wis., district. The first item for which an estimate of appropriation is made is

Manistique Harbor, Mich., \$6,000 for maintenance.

Col. Newcomer. I might make the general remark for all of these estimates in the Milwaukee district, that the estimates submitted by the district engineer were approved without any reductions, as they appear to be justified by the details which are given in the annual report.

The work covered by the estimates throughout this district cover dredging, which is annually required at the entrance, and repairs to the permanent structures, breakwaters, and piers, which are gradually deteriorating, particularly those built of timber. The rotting of the timber requires the replacement of the upper portions from time to time. The amount involved is not much in any case. Practically all of the harbors are of considerable importance, and it is a question of maintaining the works which have cost considerable money.

The CHAIRMAN. These comments you have just made are applicable

to all the improvements in the Milwaukee district?

Col. Newcomer. Yes, sir.

The CHAIRMAN. You have made this general comment, without citing those for which estimates of appropriations are made. Will you now proceed, Colonel, to make any comments which, in your opinion, would be necessary to further explain the reasons for the estimates, taking up each one?

Mr. FREAR. Take that next one, Colonel—Fox River. What is

the explanation there, please?

Col. Newcomer. The estimated amount for Fox River, \$22,500, is really mainly for maintenance, although it is put under the head of further improvement. That is to be expended principally in Lake Winnebago, and from that point up to Montello, where the project depth is 6 feet and where this work is necessary in order to keep the channel open. We also from time to time can apply a small portion of the annual appropriation to continuing work on the project, for it is not yet complete. We have been doing practically no work above Montello for some time. The depth up there is 4 feet; there is practically no traffic. The Fox River, I might state, is one of the streams which was ordered to be reexamined by Congress in the act of 1915, and that required us to make a very careful and extensive survey, in order to clear up the question of damages to surrounding lands. The conditions on Lake Winnebago and other portions of the river where the adjacent lands are subject to overflow has given rise to the question of land damage and to drainage propositions for the protection of lands, all of which we expect to be cleared up by this investigation, which possibly will result in some method of cooperation between those land interests and the navigation interests, and also the power interests, which, of course, are considerable on Fox River.

Mr. Frear, There are large paper interests there.

The CHAIRMAN. That report has not been submitted?

Col. Newcomer. That survey has not been completed. We expect

the report some time this year.

The CHAIRMAN. The next is an estimate of an appropriation for Sturgeon Bay and Lake Michigan Ship Canal, \$13,500, for maintenance.

Col. Newcomer. That is a waterway which has hitherto been under the indefinite fund for operating and care, but having no lock or dam in it, we are submitting annual estimates just the same as for other open channels, and this is the amount that it is estimated will be required for maintenance for the fiscal year.

The CHAIRMAN. Algoma Harbor, Wis., \$10,000, for maintenance.

Mr. Switzer. What place is that? Is there any town there, or

Col. Newcomer. That is a case where there is a small amount of dredging needed, including that \$10,000, but it is mainly for the repair of the concrete caisson breakwater which was built there a few years ago and which has been damaged by ice and needs to be strengthened by putting riprap on the outside.

The CHAIRMAN. Mr. Switzer, you asked some question there that

the colonel did not answer.

Mr. Switzer. I asked if there is any city or town there.

Col. Newcomer. It is a small place.

Mr. Kennedy. What is the average charge for maintenance there, the average annual charge! I see you have got a very small commerce, 11,000 tons, and this is \$10,000 for maintenance. I just won-

dered what is the average charge for maintenance there?

Col. Newcomer. This is much above the average. You will find, if you will look on page 1372 of the annual report, that the amounts expended for maintenance in the past five years have been about \$2,500, \$8,700, \$367, \$588, and \$184. This is an unusual item of expense.

Mr. Frear. The commerce remains about stationary?

Col. Newcomer. Yes, sir; it has a small commerce. It is not an important harbor.

Mr. Switzer. Do you know what depth they have?

Col. Newcomer. The project depth is 14 feet at low lake level. The Chairman. There are no other inquiries? The next item is Two Rivers Harbor, Wis., for which there is an estimate for an appropriation of \$3,350 for maintenance.

Col. Newcomer. That one includes an estimate of \$1,800 for dredging, and about \$1,200 for repairs to the pier, replacing some of the

stone filling, and the balance for contingencies.

The CHAIRMAN. Manitowoo Harbor, Wis., for which there is an

estimate of \$13,000 for maintenance.

Col. Newcomer. The main commerce of Manitowoo Harbor is that of car ferries.

Mr. Frear. They have many grain elevators?

Col. Newcomer. Yes; and all sorts of railroad traffic that is taken across the lake at this point.

Mr. Frear. It is a great grain locality.

Col. Newcomer. The estimate here involves a small amount of dredging, the main item being for repairs to the outer end of the north breakwater by building 100 linear feet of concrete superstructure. This item calls for \$6,000. We also need some stone filling, at a cost of nearly \$4,000, thus explaining the principal part of that estimate.

The Chairman. Sheboygan Harbor, Wis., for which an estimate

is made of \$14,500 for maintenance.

Col. Newcomer. That includes, again, the use of a small item for dredging. We have a Government dredge, by the way, which maintains these channels, and it is estimated that an expenditure of about \$1,800 for dredging will be needed at this harbor, \$5,000 for rebuilding a portion of the superstructure of one pier, and a portion of the revetment, about \$3,700, and some riprap for the breakwater. Those are the principal items.

Mr. Durré. Are all these points fairly contiguous to one another? Col. Newcomer. They are all along the west shore of Lake Michigan.

The CHAIRMAN. Port Washington Harbor, Wis., for which there

is an estimate for appropriation of \$2,000 for maintenance.

Col. Newcomer. That is for dredging and a few minor repairs to piers.

The CHARMAN. Milwaukee Harbor, Wis., for which there is an

estimate for the outer harbor of \$12,500, for maintenance.

Col. Newcomer. That is for repairs to the breakwater, and for usual overhead expenses. No work is proposed in the inner harbor, outside of the funds on hand, which are applicable to cutting off certain points in the Menominee and Kinnickinnick Rivers, and forming certain turning basins, as soon as the city provides the land it has agreed to provide.

Mr. Frear. The amount of \$12,500 for both inner and outer har-

bors is sufficient for all needs?

Col. Newcomer. Yes, sir.

The CHARMAN. There is a provision in the last act, where provision is made for this group, to this effect:

Provided, That this amount is hereby made available for the maintenance of the channel to the established depth of the Milwaukee, Menomonee and Kinnickinnic Rivers, and the inner harbor of Milwaukee, Wis.

What progress has been made in the maintenance of the channel to the established depth?

Col. Newcomer. I do not think any work has been necessary on the inner harbor. Generally that has been maintained, I think, by

the locality.

The Chairman. I asked that particularly, because Mr. Stafford was, as I recall his remarks in the House when the bill was last under consideration, of the opinion that there had been some neglect of the inner harbor there.

Col. Newcomer. As I understand it, the channel there is in fair condition. The annual report indicates that they have a controlling depth of 19 feet, which is the project depth. As I understand, the only work really now in contemplation is the excavation of certain points and in the widening of the channel at certain places for turning basins, and as fast as the lands are provided steps are being taken to accomplish that end. There is, I may say, a survey in progress for Milwaukee Harbor, which contemplates rather extensive work in the outer harbor by the Government, and cooperation by the locality on the development of the inner harbor.

The Charman. It has a large commerce, and of course ought to be provided with whatever channel and other means are necessary

to accommodate it.

Now, Mr. Switzer, you had some inquiry?

Mr. Switzer. I notice there is no provision for Racine. I wanted to inquire as to whether they had succeeded in overcoming that unusual wave action that was discussed here by Representative Cooper a few years ago, for which we made one or two appropriations. Col. Newcomer. That work is now nearly completed.

Mr. Switzer. Do you know what effect it is having—whether it has overcome that trouble or not?

Col. Newcomer. I have had no special report recently. As a matter of fact, the work is not yet complete.

Mr. Kennedy. It says here in the report:

The principal effect has been a stilling of the water in the river, with increased safety for vessels moored in the lower portion of the Root River. It is believed that the project has a considerable effect in controlling freight rates on coal and other bulk commodities, both locally and for transshipment.

The CHAIRMAN. The next item for which an estimate of appropriation is made is Kenosha Harbor, Wis., \$4,500 for maintenance.

Col. Newcomer. That includes \$2,700 for the operation of the Government dredge, for maintenance of the channel, and removing the annual shoaling, and about \$1,300 for riprap, stone to repair the breakwater, and for a certain amount of crib filling, and the rest for contingencies.

The CHAIRMAN. Now, Colonel, in this group there are several improvements for which no estimates of appropriations are made. The first is Menominee Harbor and River, Wis. Why are no estimates

submitted for them?

Col. Newcomer. The funds on hand are considered sufficient to provide for maintenance until the next session of Congress passes its appropriations.

The CHAIRMAN. Oconto Harbor, Wis.

Col. Newcomer. The same applies to that. There are no funds on hand; but no work is needed.

The CHAIRMAN. Kewaunee Harbor, Wis.

Col. Newcomer. There we have a balance of \$27,000, which is considered sufficient.

The CHARMAN. Racine Harbor you have already commented on. We will now take up the Chicago, Ill., district for which there are no estimates for appropriations submitted. I would like to ask the colonel as to each item there where there are no recommendations for appropriations. First, Chicago Harbor, Ill. Colonel, will you

give us the status of that?

Col. Newcomer. The Government is confining its work in Chicago Harbor to the main river, below the junction of the north and south branches, and to a certain portion of the north branch of the Chicago River, and to the work of the outer harbor in the construction of breakwaters. This relatively large balance you see here of \$331,000 is in connection with the construction of the outer breakwater. We have sufficient funds to complete the work, with the exception of about \$200,000, but this amount is estimated to be sufficient for the fiscal year.

The large portion of the Chicago River and its branches, a part of the north branch, and all of the south branch and its forks are being maintained by the Sanitary District, on account of the fact that they had to do considerable work in there in connection with their sanitary project in reversing the flow and taking the water from Lake

Michigan and discharging it into the Illinois River.

The CHAIRMAN. Chicago River, Ill. There is no estimate for that. Col. Newcomer. In that case the balance is about \$60,000, which is considered sufficient for the work that is urgently needed for the next fiscal year.

The CHAIRMAN. There is no estimate for Calumet Harbor, Ill.

Col. Newcomer. There the balance of \$46,000 is considered sufficient for the work during the next fiscal year. This item of \$46,000 is for the harbor, which is in the lake at the mouth of the Calumet River. The next item is the inner channel, for which there is a balance of about \$39,000, which is also considered sufficient for its maintenance.

The CHAIRMAN. Indiana Harbor, Ind. There is no estimate sub-

mitted for that.

Col. Newcomer. That is a breakwater project, and the funds on hand are considered sufficient to complete the construction of the breakwater, which will form the outer harbor at that locality.

Mr. Frear. What is being done at that point?

Col. Newcomer. We are building outer breakwaters so as to protect the entrance to the Indiana Harbor, which is an artificial channel connecting with the upper portion of Grand Calumet River, which gives an interior connection between this point and Calumet Harbor.

Mr. Frear. There was a transfer of title insisted upon there, as I remember it. I have got the record here, and on page 1418 it says that that has all been complied with. Only 22 per cent of the project is completed.

Col. Newcomer. Yes; but we have appropriations made up to

the estimated cost of the construction of the breakwater.

Mr. Frear. The money has been appropriated?

Col. Newcomer. Yes, sir.

Mr. OSBORNE. I notice, Colonel, that the outstanding obligations are pretty nearly equal to the amount available.

Col. Newcomer. Yes; that is right. The outstanding obligations nearly equal the amount available. The work is under contract.

Mr. Osborne. The amount available is \$499,000 and the outstand-

ing obligations are \$452,000.

Col. Newcomer. The amount available is the amount that is left after deducting the oustanding obligations from the unexpended amount.

The CHAIRMAN. Indiana Harbor is quite an important improvement. Michigan City Harbor. There is no estimate of appropria-

tion for that.

Col. Newcomer. We have there nearly \$16,000, and we regard that as sufficient to maintain the channel in Michigan City Harbor. It is mainly for boats that ply between Michigan City and Chicago.

Mr. Dupré. The completion of the project is deemed inadvisable,

I notice.

Col. Newcomer. Yes; there was certain work contemplated beyond the point to which the channel is maintained, but that is not now considered necessary.

Mr. Kennedy. Will you explain the unusual large amount of money that the Government has spent there? We have spent pretty

nearly \$2,000,000 for only 8,000 tons of commerce.

Col. Newcomer. That is true. There were rather extensive works built there, outer breakwaters and piers, and they were quite expensive.

The CHAIRMAN. Illinois River, Ill. There are two sections of that, below Copperas Creek and from Copperas Creek to La Salle,

there being no estimate for either section.

Col. Newcomer. The balance for the Illinois River of \$84,000 below Copperas Creek and a little over \$2,000 above Copperas Creek we consider sufficient for the urgent needs of the work in that river.

The CHAIRMAN. The Illinois River is a part of that old waterway

from the Chicago to the Mississippi, is it not?

Col. Newcomer. Yes, sir. I understand that the State is taking up again the question of the construction of that connecting link between the sanitary drainage canal and navigable water on the Illinois River. They provided State authority for construction there to cost something over \$5,000,000, but so far they have not secured the consent of the Federal Government to their undertaking the work.

The CHAIRMAN. The proposed route will be from Chicago via the sanitary canal, Des Plaines River, and Illinois River to the Missis-

sippi River?

Col. Newcomer. Yes, sir. I might state that part of the route will be temporarily through a portion of the old Illinois-Michigan Canal, where they have not been able to get the power rights yet in the Des Plaines River, but that is understood to be temporary, and ultimately the waterway will be in the river.

The CHAIRMAN. Does your memory serve you sufficiently to enable you to state the status of that proposed waterway to be undertaken; that is, what they propose and the present status of it, which is to

be undertaken by the State of Illinois?

Col. Newcomer. You will recall that a number of years ago the State decided to issue bonds to the extent of \$20,000,000 for the purpose of building a deep waterway, they called it, and the development of power along this route, with the expectation that the Federal Government would cooperate.

The CHAIRMAN. That was the old project of 14 feet?

Col. Newcomer. Providing a depth of 14 feet between Chicago and the Gulf. That did not meet with favor on the part of the Federal Government. Congress authorized an investigation of it, and a report was made that nothing beyond 8 or 9 feet appeared to be justified. The State then proceeded to authorize by legislative action the construction of this waterway to an 8-foot depth. That, I believe, was fought in the State courts, on the ground of its being unconstitutional, as it was not a deep waterway, as provided by the constitutional amendment, and I understand that has now been decided in favor of the constitutionality of this act of the legislature.

The CHAIRMAN. And the application of the fund to the lesser

depth?

Col. Newcomer. And the application of the fund to the lesser depth. Application was made by the governor of the State to the War Department for a permit to go ahead with this construction, because it involved work in some of the navigable waters of the United States, but the Chief of Engineers, whose consent is necessary under the law for work of that kind in navigable streams, refused to give his consent for certain reasons, principally because he felt that the question of power, which was involved there should be cleared up. The State expected to be given the use of all power developed, and also the question of the discharge through the Chicago Drainage Canal should be cleared up. They have there a permit to use about 4,000 feet a second. I think it is between 4,000 and 5,000 feet a second, and they are actually using more than that.

Mr. Denton. About 10,000, are they not?

Col. Newcomer. They asked for 10,000, but they are not supposed to be using that much. They are using between possibly 7,000 and 8,000, and they brought suit against the Secretary of War to enjoin him from enforcing the conditions of the permit, by which they are limited to a smaller amount. Testimony has been taken, and that case has been in the hands of the Federal district judge at Chicago, Judge Landis, for several years now. I do not know when we will get the conclusion of that matter. The Chief of Engineers felt that as long as that was undecided the question of the power and of the discharge that should be permitted from the Lakes, with its possible effect on lake levels, should be cleared up, a question which was out of the jurisdiction of the States and within that of the Government. I understand now they are going to take the matter up again. Whether they will present the matter in a different way or whether the Chief of Engineers possibly might now be willing to agree to some method of procedure, I do not know. I understand that Gen. Black feels very insistent also about clearing up that situation about the discharge from the Lakes through this waterway.

The CHAIRMAN. That is the question in litigation now, whether the

limitation imposed by the Secretary was a valid limitation?

Col. Newcomer. Yes.

The Charman. I understood you to say that some legislation by Congress was necessary to enable the State of Illinois to proceed to carry out its claim, or did you refer to-

Col. Newcomer. I simply referred to the investigation.
The Chairman. By the War Department?
Col. Newcomer. I referred to the investigation that was authorized by Congress for this general project of deeper waterways, and the report upon it was adverse.

The CHAIRMAN. But you did recommend a waterway of an 8 or

9 foot depth?

Col. Newcomer. Yes, sir; that the United States cooperate by providing that depth through the Illinois River, making the State provide the rest.

The CHAIRMAN. From the head of navigation in the Illinois River? Col. Newcomer. From the head of navigation to Chicago. The steps that the State has been taking for the construction of this waterway to the reduced depth have been under the provisions of the river and harbor act of March 3, 1899, which provides that the work may be undertaken in navigable streams when approved by the Chief of Engineers and the Secretary of War, if the waterway is wholely within the limits of the State. It also requires the approval of the State in that case. If the waterway is an interstate stream specific authorization of Congress is necessary. In this case the waterway they propose to improve is wholly within the limits of Illinois, and after the State approves it the work could be done by the authority of the War Department. I think that the department has felt also that the matter is one of so great importance, particularly as involving this question of the disposition of water power, which Congress has been considering so long, that possibly it ought not to be passed upon except by Congress, and, as you will recall, the matter was taken up in the river and harbors bill that failed to pass the Senate at the next to the last session.

Mr. Dempsex. Is not that problem involved in the survey that was authorized for the Niagara situation, the problem of the use of water for possible power elsewhere than at Niagara?

Col. NEWCOMER. I had not thought of that, but I presume it is, in

so far as it takes water from the Great Lakes.

Mr. Dempsey. It was my understanding that that was to include a general survey of the whole situation, because I understand that 1 cubit foot of water at Niagara is worth just 4 feet at Chicago.

Col. Newcomer. That point, I know, has been raised, that this

diversion of water from Lake Michigan means a real loss in power.

Mr. Dempsey. It means absolute inefficiency.

Col. Newcomer. So far as that feature is concerned.

Mr. Frear. It is alleged in the pleadings in these proceedings that that is a water-power proposition on the part of the State of Illinois, is it not, rather than a matter of navigation?

Col. Newcomer. The matter was presented really to the people, I think, in that way, and it was alleged by the proponents of the propo-

sition-----

Mr. Frear. I am speaking about the pleadings. Of course, I do not

want your judgment. The pleadings so allege, do they not?

Col. Newcomer. It was alleged that the returns from the water power developed would soon reimburse the State for all expenditures made, even under the \$20,000,000 proposition, and that they would then have a perpetual source of income from this power.

Mr. Frear. And that is alleged in the pleadings as the reason that the State is undertaking this improvement, rather than the question

of navigation?

Col. Newcomer. I think that the improvement for the smaller waterway, which omits for the time being the use of a certain portion of the Des Plaines River, where the State has not acquired the power rights, is not so much a water-power proposition as it is for navigation.

Mr. Frear. I was not asking for your judgment, but just what the

pleadings were in this case.

Col. Newcomer. This case is presented mainly as a navigation proposition. The people there are very urgent in their demands for a water outlet from Chicago to the Mississippi Valley. Of course, there is some power involved in that also.

Mr. Frear. The Hennepin Canal, which was built at an expense of seven or eight million dollars, has not been used to any appreciable

extent?

Col. Newcomer. No, sir; not very largely.

Mr. Frear. That was for the same purpose, was it not?

Col. Newcomer. Yes, sir; to give a better connection between the upper Mississippi and Chicago. At the time the canal was begun there was a very substantial commerce in the old Illinois-Michigan Canal, something like a million tons a year. That was in the early eighties, but that commerce has practically died out; there is practically none now.

Mr. Frear. Less than 10,000 tons last year, as I now remember,

and it is only for a short haul of 30 miles.

Col. Newcomer. Yes.

The CHAIRMAN. Grand Rapids, Mich., district. The first item there for which an estimate is made is at South Haven Harbor, Mich.,

\$4,000 for maintenance.

Col. Newcomer. That item is simply for the annual dredging required to keep the entrance channel open to project depth. That is a port of minor importance. In fact, most of these harbors on the east side of Lake Michigan are, you might say, of minor importance. A few of them have a considerable commerce.

The CHAIRMAN. The next item is Grand Haven Harbor, Mich., for which an estimate of \$25,000 is submitted for maintenance.

Col. Newcomer. That is mainly required, as shown in the estimates on page 1445 of the annual report, for repairs to the north pier and to the revetment by supplying stone filling, and for repairs to superstructure of the north pier. Those two items together involve \$18,200, and then the rest is for dredging and maintenance, and contingencies.

The CHAIRMAN. The next item is White Lake Harbor, Mich., for

which an estimate for \$3,500 is submitted for maintenance.

Col. Newcomer. That is required for dredging, principally.

Mr. Frear. Let me ask a question of the Colonel in regard to traffic across the State of Illinois on the Hennepin Canal that I find on page 2732 of the last report. The total commerce is 25,000 tons, in round numbers, of which 9,000 is reported to be commercial, and 16,000 Government. What kind of traffic is that of the Government? What is it?

Col. Newcomer. It is the shipment of supplies needed in the Gov-

ernment service.

Mr. Frear. Is it not for improvements on the canal or anything like that?

Col. Newcomer. It is in connection with the improvement; yes.

Mr. Frear. What is necessary for it?

Col. Newcomer. It is not commerce which should be credited to

the project.

Mr. FREAR. What is the object of putting that in as a part of the traffic? If it is only intended for the improvement of the canal, it is not for commercial purposes and the commerce is only 900 tons.

Col. Newcomer. It is not for commercial purposes, and, of course, has no commercial value. They distinguish between that and the

other traffic as they do on the upper Mississippi.

Mr. Frear. The average person examining it and seeing that 25,000 tons of commerce would not understand it. As a matter of fact two-thirds of that would be——

Col. Newcomer. It would be better if it were simply given as a

footnote and not included in the total.

Mr. Frear. It seems so.

The CHAIRMAN. The next item is Manistee Harbor, Mich., for

which an estimate of \$6,000 for maintenance is submitted.

Col. Newcomer. That is required for dredging and contingencies. We find there a case where the project is not complete, but no additional funds are asked for further improvement. The funds on hand will be applied to carrying out the project, however, and the \$6,000 is required for dredging and contingencies for the maintenance of the channel.

The CHAIRMAN. The next item is Frankfort Harbor, Mich., for which is submitted a recommendation of \$27,000 for maintenance.

Col. Newcomer. Frankfort Harbor is a car-ferry port. The commerce is almost wholly by car ferries. This \$27,000 is made up principally of an item of \$5,000 for dredging, for the maintenance of the project depth, and a little over \$20,000 for repairs to the piers.

The CHAIRMAN. Charlevoix Harbor, Mich., for which an estimate

of \$5,000 for maintenance is submitted.

Col. Newcomer. That is half for dredging and half for repairs to

the piers.

Mr. Frear. May I ask the colonel if you are through with that item for Portage Lake Harbor of Refuge? Three hundred and ninety-five thousand five hundred dollars has been expended there, and it is now recommended for abandonment. What is the situation?

Col. Newcomer. Well, the commerce is reduced to such a small amount that the department felt that its further maintenance was not

justified.

Mr. Frear. What was the character of the commerce in the past?

Col. Newcomer. That, I think, was one of the lumber ports. All of those ports on the eastern shore of Lake Michigan at one time carried considerable lumber, but the lumber, of course, has practically

Mr. Frear. I notice that a large amount of money has been expended upon that harbor, and that now it is intended to be abandoned. I wondered what was the reason for developing it there

Col. Newcomer. You understand these expenditures have sufficed for taking care of the commerce at those ports for many years, and

at one time the commerce in lumber there was considerable.

The CHAIRMAN. The same condition exists substantially as to Arcadia Harbor, for which there has been a recommendation of discontinuance of work?

Col. Newcomer. Yes, sir; and also at Pentwater Harbor.

Might I make one statement in connection with the commerce on the eastern shore? While lumber was originally the great item of commerce along all those ports, as the lumber has been taken away, or the timber has been cut down, the land has been developed for agricultural purposes in varying degrees, some of it to quite a high degree, so that there is now a growing demand for a number of these harbors for handling other commodities, fruits and other products of that kind, which are shipped from the eastern shore mainly to Chicago and to Milwaukee.

Mr. Frear. Portage Harbor must be quite a harbor now, with nearly \$400,000 expenditure—quite a good harbor—and yet it has less than 2,000 tons. That is what you now recommend for aban-

Col. Newcomer. That is true.
The Chairman. The reports of the Agricultural Department show that quite a large area of these cut-over lands in Michigan have been

prepared for agriculture.

St. Joseph Harbor, Mich., in this same group. There is no estimate or no recommendation for an appropriation. Why is that, Colonel?

Col. Newcomer. The available balance is about \$47,000, which is considered sufficient to take care of the work.

The CHAIRMAN. St. Joseph River, Mich. There is no estimate

submitted there.

Col. Newcomer. There we have a balance of \$10,000, which is considered sufficient for the next fiscal year.

The CHAIRMAN. Saugatuck Harbor and Kalamazoo River, Mich.,

for which no estimate is submitted.

Col. Newcomer. The fund in that case is about \$4,000, and is deemed sufficient.

The CHAIRMAN. Holland Harbor, Mich. There is no estimate submitted for that.

Col. Newcomer. We have a balance of \$7,000 which will take care of the urgent needs.

The CHAIRMAN. Grand River, Mich.

Col. Newcomer. There are about \$9,000 in that instance, which is deemed sufficient.

The CHAIRMAN. That amount is available?

Col. Newcomer. Yes, sir.
The Chairman. And that is deemed sufficient?
Col. Newcomer. Yes.

The CHAIRMAN. Muskegon Harbor.

Col. Newcomer. There the balance available is \$33,000, which will take care of the urgent needs of the work.

The CHAIRMAN. Ludington Harbor, Mich. There is no estimate

Col. Newcomer. We have a balance there of nearly \$80,000, and that will take care of the work. It is quite an important harbor.

The CHAIRMAN. Petoskey Harbor, Mich.

Col. Newcomer. That is a harbor of very minor importance, and the funds on hand are sufficient.

The CHAIRMAN. You have already commented on Pentwater Harbor, Mich., and the abandonment recommended.

Col. Newcomer. Yes, sir.

The CHAIRMAN. Detroit, Mich., district. The only item in the first group there, for which an estimate of appropriation is submitted are the channels in Lake St. Clair, Mich., for which \$50,000 for maintenance is recommended.

Mr. Kennedy. The first item is St. Marys River; it is not a very

considerable item?

The CHAIRMAN. I should have said St. Mary's River, Mich. overlooked that. There \$470,000 is asked for further improvement,

which is a very important improvement, too.

Col. Newcomer. I invite attention to the fact that in this annual report we have changed somewhat the method of grouping the work in the ship channel connecting the waters of the Great Lakes. Heretofore the various works in St. Marys River, the work at the falls, and the Hay Lake and Neebish Channels were carried separately, but the last rivers and harbors act consolidated them, so that now we are putting the St. Marys River works all in one item, and the same way with the St. Clair River and the Detroit River, and the remaining works for that channel are found in the channels in Lake St. Clair.

The item of \$470,000 for further improvement in St. Marys River is required in connection with the completion of the fourth lock at the Soo. It was considered here several years ago, when the last appropriation was made for that fourth lock, that it would probably suffice for its completion, although the full amount originally estimated as required was not appropriated. It was expected then that we would complete it for something like \$600,000 less than the estimate at the time the project was adopted. It now appears, however, on account of the increasing cost of the work, that we will need this \$470,000 additional in order to complete that fourth lock.

Mr. Kennedy. When do you expect to have the lock completed,

Colonel?

Col. Newcomer. They expect to have that completed in 1919, in

time for the opening of the navigation season.

Mr. Kennedy. Of course, when you provided for it, it was just to guard against the contingency of some of the other locks being out of commission; so while a good many of the committee were opposed to it at that time, I guess the tonnage is increasing there right along, is it not?

Col. Newcomer. It is increasing notably.

The CHAIRMAN. What is the status of the development of water

power there, Colonel?

Col. Newcomer. I think there is a lease of the power to the power company which operates the power plant under a contract with the Government, authorized by Congress.

The CHAIRMAN. Can you state how much power, if any, is being

developed now?

Col. NEWCOMER. I do not recall. It is not given in the annual

report

Mr. Frear. I call attention to the fact, so that the committee will know, that that Detroit River waterway project represents over 100,000,000 tons of commerce, as shown by the report on page 163. It has increased very rapidly.

The CHAIRMAN. We will come to that immediately.

Mr. Frear. I thought we passed that.

The CHAIRMAN. No; we are discussing St. Marys River now.

Col. Newcomer. The power proposition at the Soo is handled by another section of the office, so that I am not personally familiar with the power situation.

Mr. Switzer. Was that expected to develop a considerable amount

of horsepower?

Col. Newcomer. No; the power developed is entirely independent of the locks. We have, of course, a little power development of our own for operating the locks.

The CHAIRMAN. The next item is channels in Lake St. Clair, Mich.,

where there is an estimate of \$50,000 for maintenance.

Col. Newcomer. These channels consist of the St. Clair Flats Canal, at the upper end of the lake, and what is known as the Grosse Pointe Channel, at the lower end of the lake. This \$50,000 is for completing the restoration of the project dimensions of the Grosse Pointe Channel. The funds on hand will provide for a part of that work at the Grosse Pointe Channel and for the maintenance of the St. Clair Flats. The St. Clair Flats Canal was formerly carried under the

general fund for operating and care. We are now carrying it under

appropriations made especially each year.

The CHAIRMAN. In that group there are two items for which no estimate is submitted. One is St. Clair River. Why was no estimate submitted for that?

Col. Newcomer. The only work contemplated on St. Clair River is at Port Huron, and the amount on hand is considered sufficient to do

that work.

Mr. Frear. It also states that the work on the project is delayed because of the failure of the International Joint Commission to report, in the memorandum on page 41.

Col. Newcomer. We had to get the consent, of course, of the International Commission and the Canadian Government to that proposi-

tion. That consent has been obtained.

Mr. Dempsey. Do you know how much power they develop per cubic foot at the St. Marys?

Col. Newcomer. At the Soo?

Mr. Dempsey. No; the St. Marys.

Col. Newcomer. That is at the Soo. That is the only falls. The development of power is at the Soo Falls. I think the fall there is in the neighborhood of about 22 feet, something like that. It takes 11 feet fall per second-foot for one horsepower, does it not? That would be about two horsepower per second-foot.

Mr. Dempsey. I think there are 25,000 cubic feet, so that would

make 50,000 horsepower.

Col. Newcomer. I do not know what they develop. They have that

much water going over the falls.

Mr. Dempsey. The Chief of Engineers says the Secretary of War in June last authorized a diversion of 25,000 cubic feet per second.

The CHAIRMAN. The next item is the Detroit River, for which no estimate is made. Why is that?

Col. Newcomer. There the project channel is in a fair condition, and the fund on hand is sufficient for its maintenance for the next year.

Mr. Frear. What is the channel there at that place?

Col. Newcomer. The Livingstone Channel is the principal work in the Detroit River. You will remember that there was quite a large sum of money expended to provide for the traffic up and down by-

Mr. Frear. I was interested in knowing simply the depth.

Col. Newcomer. It is 22 feet.

Mr. Frear. There is a great amount of traffic there.

Col. Newcomer. Of, course, most of this traffic is through Lake Superior and the St. Marys and St. Clair and Detroit Rivers down to Lake Erie. The depth varies at different points, because under some conditions—for instance, where there is more current—we need a little more depth, or where there is a rocky bottom, and so on. In some places, where the bottom is soft mud, the depth is less. varies from 20 to 22 feet at different points.

The CHAIRMAN. In the next group of projects the first item for which an estimate is made is at Alpena Harbor, Mich., \$7,000 for

maintenance. Will you explain that estimate?

Col. Newcomer. The \$7,000 is required, in addition to the amount on hand, for the restoration of the project depth. That is the amount that will be required for removing 70,000 cubic yards, in addition to the available funds on hand.

The CHAIRMAN. The next item is Harbor Beach Harbor of Refuge, Mich., for which an estimate of \$106,000 for further improvement is submitted. That project, I think, was adopted in the last rivers and harbors act.

Col. Newcomer. That is the amount estimated as required to complete the new modification of the project, which is necessary in order to fit this harbor of refuge for use by the large lake freight carriers. The depth there at present, or before the present modification was authorized, was not sufficient to accommodate the big boats. A number of them have been lost, you know, in storms on the lake. The modification consists in providing an additional depth inside of the harbor, to repair the breakwaters, which are deteriorating, and also closing the gap between the two portions of the north breakwater, in order to reduce the cost of maintenance. Through that gap considerable sand comes into the harbor.

The CHAIRMAN. In this group there is no estimate for Mackinac

Harbor, Mich. Why is that?

Col. Newcomer. The work there is in a satisfactory condition. We have a very small balance of \$1,000 on hand, but we do not expect to require any more during the next fiscal year.

The CHAIRMAN. No estimate is made for Cheboygan Harbor, Mich. Col. Newcomer. The available balance of \$4,000, according to our experience, will suffice for the maintenance of that harbor during the next fiscal year.

The CHAIRMAN. Rogers City Harbor, Mich. There is no estimate

for that.

Col. Newcomer. The funds are practically exhausted there, but it is a minor port, and the conditions are satisfactory for the commerce of the port.

The CHAIRMAN. There is no estimate for Saginaw River, Mich.

\*Col. Newcomer. The balance of about \$4,000 is considered a sufficient amount for the next fiscal year, in view of the present condition of the channel.

The CHAIRMAN. Black River, Mich. There is no estimate for that. Col. Newcomer. That work is in fair condition, so that the balance of about \$2,600 is considered sufficient. I might state that there has been a change in the situation there by the omission of the work at the mouth of the Black River, which originally involved an excavation across the shoal out to the main channel of the river, the St. Clair River, and that is now included in the project that I referred to above, about the St. Clair River, in front of Port Huron, which removes the necessity for maintaining that entrance channel.

The CHAIRMAN. Clinton River, Mich. There is no estimate there. Col. Newcomer. That is a small project. The balance of \$3,000

is considered sufficient for the next fiscal year.

The CHAIRMAN. Rouge River, Mich., for which a new project was adopted in the last bill, the last act. There is no estimate submitted.

Col. Newcomer. The item adopting the project appropriated the full amount estimated as necessary for the completion of the work. That work has not yet begun, because there are certain things, preliminaries, that have to be settled, in the way of land rights and the reconstruction of bridges. Local interests are handling that matter,

I understand, as promptly as the situation will permit, and we will probably be able to go on with that work before very long.

The CHAIRMAN. But up to this time no work has been done?

Col. Newcomer. No. sir.

Mr. Switzer. Is that Rouge River?

Col. Newcomer. Yes, sir.

Mr. Switzer. Are they making preparations?

Col. Newcomer. Yes, sir.

The CHAIRMAN. Monroe Harbor, Mich., for which no estimate is submitted.

Col. Newcomer. The situation there is fairly satisfactory, and no funds are needed. The balance is very small, but no work is required at this time.

(Whereupon, the committee adjourned, to meet on Monday, Janu-

ary 14, 1918, at 10.30 o'clock, a. m.)

COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Washington, D. C., Monday, January 14, 1918.

The committee met at 10.30 o'clock a. m., Hon. John H. Small

(chairman) presiding.

The CHAIRMAN. The Cleveland (Ohio) district, page 42 of the committee book: The first item for which an estimate of appropriation was made in that district is for Toledo Harbor, \$35,000 for main-Colonel, we would be glad to hear from you as to the rea-

son and sufficiency of that.

Col. Newcomer. That amount is estimated as required to remove the annual shoaling in the channel. It is a case where there is quite a long channel in the outer harbor through more or less exposed waters, where shoaling takes place from year to year, and this amount is estimated as required for the next fiscal year, the amount on hand being about \$40,000 for this year.

The CHAIRMAN. You think \$35,000 would be sufficient?

Col. Newcomer. Yes, sir.
The Chairman. The next item is Sandusky Harbor, Ohio, \$10,000

for maintenance.

Col. Newcomer. In that case the length of channel is less. expense of maintenance is less, and there is also, I think, less shoaling from the deposits brought down by floods. At Toledo, of course, you have the Maumee River coming in, and here the exposure is somewhat less. That is considered sufficient for the annual maintenance.

The CHAIRMAN. The next item is Huron, Ohio, Harbor, \$5,000 for

maintenance.

Col. Newcomer. In that case, it is partly for dredging and partly for repair of the west pier, for which they need \$5,000.

The CHAIRMAN. Is that estimate regarded as sufficient for the

maintenance for the fiscal year?

Col. Newcomer. Yes, sir.

The CHAIRMAN. I would like to direct the attention of the committee to certain improvements in the Cleveland, Ohio, district for which no estimate of appropriation is made, and I will ask Col.

Newcomer to take up each one of these improvements and explain

why no estimate was submitted.

Col. Newcomer. The amounts available for the fiscal year 1918, the items at the harbors for which no estimates are submitted, which amount to \$1,600 for Port Clinton Harbor, about \$3,900 for Vermilion Harbor, about \$95,000 for Lorain Harbor, \$290,000 for Cleveland Harbor, \$15,000 for Fairport Harbor, \$30,000 for Ashtabula Harbor and \$92,000 for Conneat Harbor, are considered sufficient not only to take care of the needs of this fiscal year, but also for the next fiscal year, so that no additional amounts were requested in those cases.

Mr. Emerson. What is that \$290,000 for Cleveland Harbor to be

used for?

Col. Newcomer. You will find that given on page 1543, under paragraph "Proposed operations." You will find a table there that gives the distribution of \$290,000 to a number of different items, mainly work on the breakwaters.

Mr. EMERSON. How near completed is that breakwater, and which

part of the breakwater was not completed?

Col. Newcomer. The eastern arm of the outer breakwater is the one which is not yet completed. There is supposed to be a pierhead built there, for instance, for a light, and there was some question about just how far it should be extended. The development, in fact, at the eastern end of Cleveland Harbor is not entirely settled yet. I thought that there would be a recommendation for modification of projects here, but I do not find any. It seems to me we submitted a report recently recommending the method by which the eastern end of Cleveland Harbor should be terminated. There is to be an arm running out from the shore, which would leave an opening between it and the main breakwater for an entrance from the east. As you recall now, it is all open to the east?

Mr. Emerson. Has your office any report on the survey that is being made in connection with the straightening of the river, or is that

in the hands of the local engineer?

Col. Newcomer. The authority given by Congress at the last session for the investigation of new plans of improvement for straightening Cuyahoga River appropriated \$5,000 for that, and indicated certain limits within which the Government would cooperate in the improvement when undertaken. We have had no report as to any action taken by local interests or the district office in connection with that improvement. I could not tell you what the present status is.

Mr. Emerson. When I was out home during the holidays, the rivers committee of the chamber of commerce called my attention to the fact that there are about 12 or 14 blast furnaces up the river and they were unable to get iron ore to some of them because of sand bars that had washed into the river. Do you know whether the Government undertook to clear that situation up? Most of these blast fur-

naces are furnishing iron to be used in the war situation.

Col. Newcomer. The Government has no funds that would be applicable to the maintenance of the present channel of the Cuyahoga River. That has been maintained by the locality, deepened and maintained by the locality. The only authority we have now is in connection with this new project for rectification of the channel, and

no funds we have available now are for maintenance of the old channel. It would require special further authority of Congress.

Mr. Emerson. The city at this time has practically reached its tax limit and is unable to cooperate to any extent. Would you think it advisable to take care of the river now during this war situation?

Col. Newcomer. In the absence of any special investigation I do not know, of course, enough about the present situation to justify an opinion entitled to weight. We have felt that it was a proper thing for the city to cooperate by handling the inner channel. The Government has made very large expenditures for the outer channel and for a short distance in the Cuyahoga River, up to the first bridge, and above that the city has handled it. The interests affected by the shoaling are, of course, interests of great financial strength, so that apparently if they are in trouble they could help themselves.

Mr. Switzer. How many miles up is that?

Mr. Emerson. About 5 miles.

Mr. Switzer. These are immense corporations?

Mr. Emerson. They are large corporations.

Mr. SWITZER. Their resources run up to millions and millions.

The CHAIRMAN. Let me suggest for your consideration, whether you would wish included in this bill an authorization for an examination and survey of the river, even if an appropriation ought to be made by Congress, we are not in a position to do so now, because we have no estimate and report on it.

Col. Newcomer. I think, Mr. Chairman, that the matter could be handled, if desired, by resolution of the committee referring the report on the Cuyahoga River back for review; that is the one upon which the new project adopted last Congress was based. time the only improvement considered was the one straightening the channel, and whether that would place a limitation upon the further consideration, it would seem as though maintenance might be considered in connection with that report.

Mr. Emerson. The city has reached the tax limit and is unable to appropriate any money on account of the State law. It has appropriated some \$50,000, and that is all they can do at this time.

The CHAIRMAN. You might take that up with the city and see

if they wish some examination.

Mr. Emerson. I talked with the engineer who said he had urged a larger appropriation, but the committee cut it down on account of the one per cent tax law, which prohibits them going any further.

The CHAIRMAN. Referring to Lorain Harbor, for which we

adopted two new projects in the last bill.

Col. Newcomer. One was for extending the breakwater and one was for deepening.

The Chairman. Has any progress been made on the construction

of those works yet?

Col. Newcomer. No progress has been made yet. It was so near the end of the navigation season it was decided that it was better to wait until the spring before beginning work on that.

Mr. Frear. I note a contract obligation of \$6.

Col. Newcomer. I do not think that is a contract obligation. It

is an outstanding liability, but not a contract obligation.

The Charman. Buffalo, N. Y., district; the first item there for which estimate of appropriation is made is for Black Rock Channel and Tonawanda Harbor, \$10,000 for maintenance, and there is also an estimate for the sundry civil bill of \$300,000. Colonel, we will be glad to hear from you as to the status of that improvement and the sufficiency of the estimate to be carried in this bill of \$10,000 for maintenance.

Col. Newcomer. That is for dredging out the Lake Erie entrance to Black Rock Channel. It is a part subject to shoaling and this comparatively small sum is needed for the maintenance of the

channel leading in from Lake Erie.

The item of \$300,000 in the sundry civil bill is an item for the last appropriation required under continuing contract authorization that was made several years ago.

The CHAIRMAN. It will complete the project?

Col. Newcomer. It is expected to complete the project. Mr. Dempsey. Does that finish that work, Colonel?

Col. Newcomer. Yes, sir.

Mr. Dempsey. As I understand it, there has been a report made by the local engineer recommending certain projects advocated by the Buffalo Chamber of Commerce and disallowing others?

Col. Newcomer. Yes, sir.

Mr. Dempsey. What are the ones that are recommended?

Col. Newcomer. The ones that are recommended are the cutting away or excavation of a portion of the triangular area west of the State breakwater, near the Erie Basin, so as to ease the passage between Black Rock Channel and Buffalo Harbor. That is an item which has not been authorized by Congress and is really the only one that the district engineer recommended that has not already been authorized. He also did recommend another item which the locality desired, and that is the widening at the bend where Lake Erie Entrance Channel joins the Black Rock Channel, but that had already been authorized by Congress last session, so that we can proceed with it. The report that has now been prepared carries only the recommendation for one item which has not been authorized—that is, just west of the old State breakwater.

Mr. Dempsey. How much would those two items mean in the

appropriation?

Col. Newcomer. I think the amount recommended for removing the triangle to ease the turn west of the State breakwater is only about \$23,000. The other one, I think, is about \$20,000. It is in the same class of figures. That can be taken care of—the last one with this \$300,000 when that is appropriated.

Mr. Dempsey. This \$23,000 item would have to go into the bill

separately?

Col. Newcomer. Yes, sir.

Mr. Dempsey. Can you give us an idea of the items disallowed, just a brief sketch of them?

Col. NEWCOMER. The principal one, probably, from their point of view was the widening of the harbor entrance, which we discussed the other day. It was felt that experience with the improved conditions there, after getting rid of the Delaware, Lackawanna & Western Railway Co.'s coal pier should be had before going to the very considerable expense that would be involved in widening that entrance. The other items that they proposed, and which were considered and were turned down by the district engineer, were primarily turned down because they were beyond the limits of Buffalo Harbor; they were in Black Rock Channel. The local interests desired excavation between the edge of the channel and the shore, so as to open up certain portions of the water front for commercial use. It is rather expensive, because of rock excavation, I understand, so that the district engineer rather intimated that even if there were authority to examine it, it would hardly have sufficient merit to warrant it, but he turned these items down primarily because they were beyond the limits of the item authorizing the investigation.

Mr. Dempsey. The survey did not extend-

Col. Newcomer. Did not cover that territory, according to his interpretation. Locally, they say it should, because it is a part of Buffalo Harbor, but, as a matter of fact, it is carried in the law and in our annual report as a separate project.

Mr. Dempsey. That is in the neighborhood of new steel plants

down there?

Col. Newcomer. No; I do not think there are any steel plants at that point. That is between the Erie Basin and the Black Rock Lock in Black Rock Channel.

Mr. Dempsey. It is above the steel plant?

Col. Newcomer. Oh, yes; I think so. Just what the basis for that recommendation was I do not recall at present, because we felt we were not in any position, really, to consider it under the authority of law which we had.

Mr. Dempsey. That is within the district of the local engineer?

Col. Newcomer. Oh, yes.

Mr. Dempsey. And the only question is whether, in providing for the survey we provided in broad enough terms to include the point

for which they asked the appropriation to be made?

Col. Newcomer. Exactly. You really should have authority there for the examination of Black Rock Channel; that is, the present designation covering that territory. I think also that there was another item that was proposed, but one upon which they made but little insistence, and that was for another connection between the Buffalo River and the outer harbor, farther south than the main entrance. That, I believe, they found was objected to so seriously by the railroad companies and others whose operations would be seriously affected by the necessary drawbridges that such work would hardly be warranted.

Mr. Dempsey. The thing I have always heard urged up there, since I have had anything to do with Buffalo, has been the entrance to the harbor. They were very serious about that. We took testimony once there, and the vessel men said it was positively dangerous coming into the harbor. They had a larger number of practical men, men who navigate vessels, and then men who own transportation lines, and we took testimony for a couple of days, and the opinion was all one way. These practical men said that in rough weather they could not enter the harbor at all; they had to run back and wait until the storm abated to enable them to enter the harbor.

Col. Newcomer. You mean to enter the outer harbor?

Mr. Dempsey. That is my understanding.

Col. Newcomer. I did not understand that. Of course, there may be at times a storm so severe as to prevent a vessel coming into a harbor of that character, but under practically all conditions, except the

most severe storms, I think they come in there without any trouble. Of course, Buffalo being at the end of the lake is subject to very severe changes of water level due to wind storms. The water may go up or down 7 or 8 feet, and, of course, that might give them insufficient depth at times to come in under certain storm conditions, but they have not asked in this survey to which you refer for any change in the entrance to the outer harbor; it is only the entrance to the inner harbor that they speak about.

Mr. Dempsey. Would the outer harbor be safe in a heavy storm?

Col. Newcomer. I think so; yes. They are safe in the outer harbor.

Boats come down there and winter in that outer harbor.

Mr. Dempsey. As I understood you, you made a suggestion that these two small items be acted upon favorably instead of waiting for the hearing before the engineers as to the items which were disal-

Col. Newcomer. I suggested that the report recommending these be forwarded to Congress instead of waiting for further discussion of disallowed items, because they could be taken up at any time upon the request of the committee for review of its report.

Mr. Dempsey. Why should not that be done?

Col. Newcomer. I have written to Mr. Williamson, telling him.

He is secretary of the chamber of commerce up there.

Mr. Dempsey. He is traffic manager of the chamber of commerce.

Col. Newcomer. I wrote to him that if they could make any additional representation they wished to submit in the near future, that there probably would still be time to submit the report to Congress before the river and harbor bill is passed, so there would be an opportunity to consider it, but if their further discussion would involve any considerable delay, it would be well to let this report go in so that the item which is recommended could be considered in passing the bill.

Mr. Dempser. Why should not we do that at once, Mr. Chairman—have that report come in and have these items that have been

favorably reported?

Col. Newcomer. That, of course, can be done. We are perfectly willing to forward that. I wrote to Mr. Williamson, however, and I expect to hold it up until I hear from him.

Mr. Dempsey. That is all right, then.

Col. Newcomer. And as soon as he says they are willing to let the matter go forward as it is, pending further discussion, to take place

later, of course that will be done.

The CHAIRMAN. Answering your question propounded to me a little further, it is a matter we can consider, but it almost appears prima facie now we had better proceed with the appropriations in this bill based upon the report and information at present before the committee, particularly in view of the correspondence between the engineers' office and the secretary of the chamber of commerce.

Mr. Dempsey. It is a very small item they have recommended.

Col. Newcomer. There is really only one item that remains. Mr. Dempsey. The others have already been authorized by Congress.

Col. Newcomer. Yes.

Mr. Dempsey. It is only \$20,000.

The CHAIRMAN. Do not have any mental reservation as to what is to be done on the floor if you can avoid it.

Mr. Dempsey. We will have plenty of time to take this up, will

we not?

The CHAIRMAN. Yes. Colonel, the next item for which an item of appropriation is made is \$1,000 for the maintenance of Niagara River.

Col. Newcomer. That is a case where no work is contemplated in the way of dredging, but they are required to make examinations from time to time in looking after the stream. The balance on hand is very small, only \$644, and they think that \$1,000 would be required to take care of contingent expenses, survey of channel, etc.

The CHAIRMAN. That river requires constant supervision.

Col. Newcomer. Yes, sir. Mr. Chairman, if you will permit me now, I would like to suggest an item which has not been included in the estimates, but which should go to Erie Harbor. A storm in December made a breach in Presque Isle Peninsula, which protects Erie Harbor. The money on hand was promptly applied to building a barrier across the breach. But another storm came up about 10 days later which destroyed that and widened the breach somewhat. It is now closed by the accumulation of ice on the shoal, so that nothing is needed or really can be done until next spring, but the district engineer has sent in an estimate of cost of \$50,000 for restoring or repairing that breach in Presque Isle Peninsula. Erie Harbor is quite important and has 4,500,000 tons of commerce, and the maintenance of that peninsula has always been considered essential for its protection. I would suggest, therefore, that \$50,000 for maintenance be inserted for Erie Harbor, and I would further suggest that those items-Erie Harbor, Dunkirk Harbor, Buffalo Harbor, Black Rock Channel, Tonawanda Harbor, and Niagara River-be incorporated in one group. They were not put in a group last year, because no money was asked for them last year; they were not mentioned at all.

The CHAIRMAN. Do you think they are sufficiently related to

justify their inclusion in one group?

Col. Newcomer. Yes, sir. It would be in accordance with the same principle observed before. There was nothing included last year, simply because there was no appropriation for them. This other group was called B last year, because we expected to form this group and call it group A.

Mr. Frear. If they were grouped you would be able to take the \$216,000 now credited to Buffalo and make those repairs to Erie

Harbor?

Col. Newcomer. Oh, no, sir. The amount that is on hand there is required for work at Buffalo Harbor.

Mr. Frear. I mean, if it was imperative.

Col. Newcomer. Oh, yes; as a case of emergency we could do that. Mr. Frear. What is the connection between Erie Harbor and Niagara River, for instance, that would cause them to be coupled together?

Col. Newcomer. Erie, Dunkirk, and Buffalo are all harbors on the lake. The record shows that local interests consider Black Rock Channel to be substantially a part of Buffalo Harbor. It is right in the city there, and the channel extends down Niagara River a

few miles to Tonawanda Harbor. So this improvement includes a part of Niagara River, and this smaller improvement farther down on Niagara River, I think, should be put in that group.

Mr. Dempsey. What advantage is there from grouping, other than enabling the engineer's office to use a fund which has been appropriated—for instance, take that \$216,000—simply to enable the use of

that fund under exigencies for Erie Harbor?

Col. Newcomer. That is exactly the advantage that would come For instance, if that storm had occurred at a different time of the year and the breach had been made under circumstances where there was no fund available and Congress was not in session and no money could be obtained, funds appropriated for other work in the same group could be diverted. That situation would be reported to Congress at the first opportunity, and undoubtedly the funds would be restored. But you have not only that opportunity for meeting great emergencies, which rarely occur, I must say, but normally for the situation where in making estimates two years in advance for maintenance you can not well say just how much will be required. The intervening conditions may modify the situation so that what you expect to need at one time and place you may not, and you may need more at another than you expect, and the grouping system permits you to adjust the application of the funds to the actual needs as they develop.

Mr. Kennedy. I should think, if you are going to adopt a grouping system, it would be better to have an entire engineering district in the group, so that the engineer will be permitted to use the money

appropriated for maintenance on any project.

Col. NEWCOMER. We have in one instance done that. Every harbor in the Cleveland district forms a part of one group. At the other places the localities have been separated to such an extent that there was some question as to whether the grouping system should be extended so as to include them. Of course, that would be a practicable proposition to which I would have no objection if Congress would permit it.

Mr. Kennedy. It just occurred to me that if it is a meritorious way of handling the thing in small groups it would give them more latitude and really be more desirable to have the entire district in

Col. Newcomer. I see no objection to it myself if authority were

given for it.

Mr. Dempsey. So far as I am individually concerned, I would rather not have the grouping system at large.

The CHAIRMAN. To embrace the whole district?

Mr. Dempsey. No; I would not like to have it grouped so as to tie up Erie Harbor with Buffalo.

Col. Newcomer. As a matter of fact, I think there is no present

difficulty about this situation, Mr. Dempsey.

Mr. Dempsey. I know that, but I do not want to see any part of that \$216,000 going over to Erie.

Col. Newcomer. We are asking here for \$50,000. No; we will

not need to take any from that.

Mr. Dempsey. The fact that you do not need it would be a good reason for not doing it.

Colonel, I would like to call your attention to page 1566, part 1, second paragraph:

Under date of May 19, 1916, the Chief of Engineers recommended that the project for this harbor be modified to include the dredging of area F to the southern harbor line of lot 3, but extending only to within 100 feet of the harbor line, and area G, as shown on map accompanying House Document No. 1139, Sixty-fourth Congress, first session, which contains the report. The estimated cost is \$132,000 for new work and \$2,000 annually for maintenance.

We do not seem to have that in the bill.

Col. Newcomer. That is a new project recommended there and provides, if adopted, for the excavation of certain areas in the outer harbor, so as to give additional area for the maneuvering of boats and also for the use of certain portions of the harbor front that are now inaccessible on account of the lack of depth.

Mr. Dempsey. Why should not that be adopted?

Mr. Kennedy. We have not come to those propositions yet in the consideration of the bill.

Mr. Dempsey. But suppose it was not included in the bill on the theory it was not anything that was immediately pressing—

Mr. Kennedy. It has to be adopted by this committee.

Col. Newcomer. You see we only put in estimates for adopted

projects; we are not allowed to put in estimates for others.

The CHAIRMAN. The next item for which estimate of appropriation has been made is Charlotte Harbor, N. Y.; \$13,000 for maintenance.

Col. Newcomer. That item is the amount that is expected to be required in addition to the available funds for redredging the channel and restoring the project depth. The estimated cost of that work is \$23,000; having \$10,000 on hand, the estimate is submitted for \$13,000.

The CHAIRMAN. In the Buffalo district there are several improvements for which no estimate is submitted. First, is Dunkirk Harbor, N. Y. Why was no estimate submitted for that, Colonel?

Col. Newcomer. The available funds of about \$46,000 for this fiscal year are considered to be sufficient for the needs of the next

year also.

Mr. Frear. The record shows only 998 tons commerce. Is that all the commerce they have there—referring to page 43 of the com-

mittee's book?

Col. Newcomer. Yes; that is a completed project. It is a harbor that has very little use; fishing boats come in there. The tonnage is very small; in fact, before 1917 the tonnage was not reported for several years, and the last year before that was 1912, and it was reported only 86 tons.

Mr. Frear. After spending nearly \$1,000,000?

Col. Newcomer. We have a contract for rock excavation, which will leave about \$46,000 on hand.

Mr. FREAR. What is the idea as to that being an important harbor? Col. Newcomer. That is not an important harbor; it is a very unimportant harbor.

Mr. Dempsey. It is a curious thing. Dunkirk has been growing very rapidly and is a very prosperous locality—a great railroad center.

Mr. Frear. How do you account for that small commerce; you are familiar, I suppose, with the conditions there?

Col. Newcomer. I am not especially familiar with Dunkirk Harbor. It is a harbor of minor importance and my attention has not been brought to it particularly. As I recall it, quite substantial work was authorized by Congress about 1910, on the representation made by local interests that there was a rock reef obstructing the entrance, which was causing the trouble and limiting the commercial use of the harbor, and for that reason a substantial additional amount of work was authorized. This contract obligation is a part of that work, but I doubt whether its completion will have any material effect. As you say, there is now a little commerce there, but nothing to correspond to the amounts expended.

Mr. FREAR. In other words, the chairman's recommendations to the various communities to utilize what is given them ought to be carried

out?

Col. Newcomer. Yes, sir.

The CHAIRMAN. I have made a memorandum of that for some correspondence.

Next is Olcott Harbor, N. Y., for which no estimate of appropria-

tion is made.

Col. Newcomer. That is a harbor of very minor importance; in fact, no commerce reported there, and nothing need be done.

Mr. Dempsex. There is just this about Olcott: You have two piers there, and they are both fallen into decay, they tell me.

Col. Newcomer. Yes, sir.

Mr. Dempsey. Both are getting in very bad condition, and in order

to preserve them there should be something done.

Col. Newcomer. The steamboat company got permission to use one of those piers as a landing place on condition they would keep it in repair. I do not think they are doing it. As a matter of fact, I rather have the impression the steamboat company has stopped operating.

Mr. Dempsey. You would not let the existing work absolutely rot

away?

Mr. Kennedy. If they are not using it, why expend the Govern-

ment's good money on it?

Mr. Dempsex. Of course, they are not using them very much, but that, Colonel, is one of the projects being considered in the power canal, and that would make it, of course, a very different situation, and make it a very important point. That is one of the three routes considered, and as I understand it, and is one of the two routes which has been recommended in previous reports. On that account it seems to me it would be well to preserve existing work.

Col. Newcomer. I think that the work that is now there would have practically no significance for that big project if it is carried through, because this is only a small project, and the works are not extensive. But, at the same time, it would cost a good deal of money to repair these piers and put them into first-class condition, and there is no present commercial prospect that would appear to justify that work.

Mr. Kennedy. There is no commerce at all, it says, for 1916.

The CHARMAN. Will you, also, Mr. Dempsey, take up Olcott Harbor with a view to ascertaining the status of commerce there and prospect for any improvement; and if not, why not? Get them to report in writing and submit it to the committee at a later date.

Mr. Dempsey. Yes.

The CHAIRMAN. No estimate of appropriation for Great Sodus Bay is submitted.

Col. Newcomer. Available balance about \$26,000 is considered sufficient for the next fiscal year also.

The CHAIRMAN. No estimate for Little Sodus Bay Harbor.

Col. Newcomer. We have a balance of \$12,000, which is considered sufficient for the present needs.

The Chairman. Oswego Harbor has no estimate of appropriation. Col. Newcomer. We have there a balance of about \$102,000, which will take care of the needs of the existing project. That balance is expected to be utilized mainly in the repair of the outer breakwater. This is a case, also where a new project has been recommended in connection with the use that will attend the opening of the new Welland Canal when it is enlarged.

The CHAIRMAN. Cape Vincent Harbor, N. Y.

Col. Newcomer. We have a balance there of about \$12,000, which will suffice for the needs of the next fiscal year.

Mr. Frear. Cape Vincent Harbor is a very small harbor—very small commerce, too?

Col. Newcomer. Yes, sir.

Mr. Frear. What is the character of commerce at Cape Vincent?

Col. Newcomer. I would have to look that up. On page 1593 you will get the character of the traffic. Fish constitutes 20 per cent, wood pulp 61 per cent, cattle 15 per cent, and miscellaneous 4 per cent in 1916.

Mr. Frear. Wood pulp is the main item?

Col. Newcomer. Yes, sir. The Chairman. There is no estimate of appropriation for Ogdensburg Harbor.

Col. Newcomer. We have a balance of about \$8,000, which we con-

sider sufficient for the next fiscal year.

The CHAIRMAN. That brings us to the Pacific coast. The committee will now adjourn until to-morrow morning at 10.30 o'clock.

(Thereupon, at 12.45 o'clock p. m., the committee adjourned to meet to-morrow, Tuesday, January 15, 1918, at 10.30 o'clock a. m.)

## COMMITTEE ON RIVERS AND HARBORS, House of Representatives, Tuesday, January 15, 1918.

(The committee met at 10.30 a.m. After completing hearings on the Tennessee River the committee resumed the hearings on the estimates.)

## STATEMENT OF COL. H. C. NEWCOMER, CORPS OF ENGINEERS, UNITED STATES ARMY—Resumed.

The CHAIRMAN. Los Angeles (Cal.) district, first item, for which an appropriation is estimated for Los Angeles Harbor, or that part of it known as the inner harbor, \$100,000 for further improvements. Colonel, we will be glad to hear from you regarding that specific part of Los Angeles Harbor.

Jol. Newcomer. The estimate is for continuing the work on the widening of the Los Angeles inner channel, which was authorized at the last session of Congress. A small appropriation was made at that time. It was considered very desirable to authorize the project, so that local interests would know what the Government intended to do, and in that way be able to accommodate themselves to the modified plan for the harbor improvement. This \$100,000, is asked for additional prosecution of the work.

Mr. Dempsey. What is the size of the channel?

Col. Newcomer. It is to be increased to about 1,000 feet.

Mr. Dempsey. What is the size of the entrance to the inner harbor?

Col. Newcomer. It is to be 750 feet wide.

Mr. Dempsey. What is the commerce there, as compared with that which we have at Buffalo, where we have 200 feet at the entrance?

Mr. Osborne. We had 2,340,000 tons.

Col. Newcomer. The present project is for an entrance of 750 feet width, widening to 1,000 feet inside. That, of course, in in the harbor where the boats enter and lie along the side—they are expected to do that, naturally—along both sides of the channel, and they have to be turned in there to go out, or back out, and it was thought best, for that reason, to provide for the additional width.

The CHAIRMAN. That is item D?

Col. Newcomer. That is item D on page 1604 of the annual report. The CHAIRMAN. It is for the work specified in item D that this appropriation is asked for?

Col. Newcomer. Yes, sir. The Chairman. What is the status of the other parts of the improvement of the Los Angeles Harbor? I mean the two—the outer harbor and the silt diversion. Why is no estimate for appropriation asked for them in this case?

Col. Newcomer. In case of the outer harbor, no additional work is needed. The project depth has been secured and the shoaling is very moderate; so that no funds are required at this time. The silt diversion project was authorized by Congress in 1916.

The CHAIRMAN. That is item F?

Col. Newcomer. That is item F, on page 1604. It was first in the 1916 act, and then a modification was authorized in the 1917 act, when it was found that the rights of way involved in the original channel were so difficult to acquire that a modified route for the improvement was desirable. The rights of way have not yet been secured, and the appropriation of \$500,000 is on hand, so that we can order the work begun as soon as the legal questions are cleared up.

The CHAIRMAN. Captain, do you have any questions?

Mr. Osborne. I notice you did not make any estimate for maintenance there.

Col. Newcomer. We have a balance of about \$174,000 for the harbor proper, which includes the appropriation made in the last act for the widening of the channel. We considered the funds on hand sufficient for maintenance.

Mr. Osborne. I was going to ask you about the San Diego project.

Is nothing needed there at this time?

Col. Newcomer. Sufficient appropriation was made for that harbor in the last act. We have a very substantial balance on hand there— **\$4**18,000..

The CHAIRMAN. Why is no estimate made for the Colorado River? Col. Newcomer. We have there a small balance on hand. As a matter of fact, the Colorado River has no navigation, and this item is really for the levee which protects Yuma, on the Gila River at its junction with the Colorado River. Congress appropriated \$10,000 for the repair of that levee, and this is the balance remaining on hand. We do not anticipate the need for money there.

Mr. OSBORNE. Referring to these items for maintenance, they were segregated—Los Angeles, San Diego, and San Luis Obispo.

They are consolidated here.

Col. Newcomer. The consolidation is only for Los Angeles Harbor. You will notice that Los Angeles Harbor has three items under it—the outer harbor, the inner harbor, and the silt diversion. A consolidation might be desirable if the committee saw fit to make it.

Mr. OSBORNE. I would like very much to get in a couple of items in regard to the disposition of handling these funds, but whether to suggest it now or wait until it goes before the committee—

Col. Newcomer (interposing). Did you see the letter from the

Chief of Engineers about that, Captain?

Mr. OSBORNE. No.

Col. Newcomer. A letter was sent you about it—possibly yesterday. You have not yet received it?

Mr. OSBORNE. No.

Col. Newcomer. As I understand it, the two propositions you have in mind are, first, that contract authorization for the entire silt-diversion project be made, and, second, that legislation be enacted authorizing the Secretary of War to enter upon the lands required for that project without awaiting their actual acquisition.

Mr. Osborne. After binding the local community to take care of

the damages, the rights of way, etc.

Col. Newcomer. The original recommendation, of course, made by the Engineer Department to Congress for that project asked for an appropriation of substantially this sum. \$500,000, and also recommended that contract authorization be given for the balance. That is the view of the department as to what would be a desirable method of procedure, so that when the work is begun it can be undertaken in the way that will contemplate the whole work. That, of course, is a question which the committee decided adversely before. The other question, that of authorizing the Secretary of War to enter upon the lands, as we considered it, is a rather doubtful proposition. The district engineer, it is true, did recommend that the Government in this case should provide the necessary rights of way, and recommended that authority be given to the Secretary of War to take possession of the lands needed at once, without awaiting the results of condemnation or other proceedings for their acquisition. His recommendation was not concurred in by the Board of Engineers on Rivers and Harbors, nor by the Chief of Engineers. It was thought that the property rights should be settled by the local interests.

Mr. Osborne. They do not intend to evade that condition in any way, but have given the Government full assurance that everything will be taken care of. The point is that it is not desired to await the necessarily long proceedings in court, as that will put the matter off for years, and meanwhile, from the estimates of the engineer department, the damage by silt brought down into the harbor is

\$80,000 a year. We will waste that \$80,000 annually unless this work is done, and we will also be deprived of the advantages of the im-

provement to the harbor.

Col. Newcomer. The question is whether Congress really has authority to direct the Secretary of War to enter upon lands which are being acquired by somebody else, for river and harbor improvement. If the Government were acquiring them, I judge the procedure would be quite proper; but where the local interests are acquiring them under local laws, it is a question whether they should not be acquired strictly in accordance with those local laws, or have those local laws modified to accomplish the purpose. Couldn't that arrangement be made—to have the local authorities authorized by the State to enter upon the lands at once?

Mr. Dempsey. I should think it could be.

Mr. OSBORNE. I do not care particularly how it is done, so long as the object is attained.

Col. Newcomer. That is simply the question as it appeared to us,

whether it was legally a proper procedure.

Mr. Dempsey. The State of California can pass a statute by which they can authorize any one seeking to take lands to enter upon the lands upon giving the proper bonds.

Mr. OSBORNE. But would that help the Secretary of War? Mr. Dempsey. You can turn it over to the Secretary of War.

Mr. OSBORNE. Would you take it?

Col. Newcomer. Oh, yes; as soon as these lands are available by

any legal process.

Mr. Booher. Isn't there a law in California, in regard to condemnation procedure, which provides that when the parties can not agree, suit may be brought by condemnation and a deposit made, and then, as soon as the deposit is made, the authorities seeking possession can go ahead with the work, and when the business is litigated through, if the damage is higher, an assessment is made accordingly, and if it is less, settlement is made on that basis and a part of the money deposited will be returned? Isn't there such a provision in the law of California covering condemnation proceedings?

Mr. Osborne. I don't know; I am not a lawyer. I took this matter up with the local engineer there, and he believes that it will put back the work perhaps for years and cost the Government a good deal more money, and at my request he drew up these proposed

amendments here.

Col. Newcomer. Don't you think those were drawn up in line with the original recommendation, which was that the Government should procure the rights of way?

Mr. OSBORNE. These were drawn up while I was home.

Col. Newcomer. Weren't they drawn up under the influence of that original recommendation, from the point of view that the Government should acquire the rights of way and be given authority to enter upon the lands at once? If you will notice the words in which it is drawn up, you will find that it does not indicate that the locality is to pay for the rights of way.

Mr. OSBORNE. It refers to the House document setting forth the

conditions.

Col. Newcomer. You will notice it says to enter upon the land pending payment for the rights, and the inference from the language used would be that the Government was to pay for the rights. That can be cleared up by proper amendment.

Mr. Osborne. Yes.

Col. Newcomer. The other point is whether it is the best method

of procedure.

Mr. OSBORNE. Suppose the city or county of Los Angeles gives a bond for that. I know they will. Suppose the city or county of Los Angeles gives a bond to do these things, to take care of these things. Why wouldn't that be the proper way to proceed in the matter?

The CHAIRMAN. See if I can not help to clear up this matter. The city of Los Angeles is locally cooperating, and not the State of Cali-

fornia?

Mr. OSBORNE. Both the county and State. The State has made an appropriation, and the county of Los Angeles has voted bonds. It is doubly secured. I will state about these bonds that they are in the supreme court now on the question of their regularity, but they have been voted.

The CHAIRMAN. The provision for local cooperation attached to this project provides that before any work is undertaken by the United States assurances satisfactory to the Secretary of War shall be given that the city and county of Los Angeles will bear the cost of purchase and adjust all claims for damages and also for maintenance after its completion. I will ask Col. Newcomes if it is his understanding that the lands and realty which are acquired in connection with the project for the diversion of silt belong to the United States?

Col. Newcomer. They do not. The United States would probably agree that it could be handled in that way. They do not now belong to the United States.

The CHAIRMAN. After they are acquired, will they?

Col. Newcomer. The right of way may be either in the form of an easement or in the form of title in fee simple. That can either run to the county or to the United States. We are not concerned about that. We only want the rights securely held by the public for use for these purposes. In those cases where the locality is going to maintain the improvement, it probably would be as well for the title to remain in the county instead of the United States.

The CHAIRMAN. Would the language of the act of June 29, 1906, be

applicable? It provides as follows:

That whenever any person, company, or corporation, municipal or private, shall undertake to secure any land or easement therein, needed in connection with a work of river and harbor improvement duly authorized by Congress, for the purpose of conveying the same to the United States free of cost, or for the purpose of constructing, maintaining, and operating locks, drylocks, or other works to be conveyed to the United States free of cost, and of constructing, maintaining, and operating dams for use in connection therewith, and shall be unable for any reason to obtain the same by purchase and acquire a valid title thereto, the Secretary of War may, in his discretion, cause proceedings to be instituted in the name of the United States for the acquirement by condemnation of said land or easement, and it shall be the duty of the Attorney General of the United States to institute and conduct such proceedings upon the request of the Secretary of War: Provided, That all expenses of said proceedings and any award that may be made thereunder shall be paid by the said person.

company, or corporation, to secure which payment the Secretary of War may require the said person, company, or corporation to execute a proper bond in such amount as he may deem necessary before said proceedings are commenced.

Mr. OSBORNE. That authorizes the Attorney General to take proceedings?

The CHAIRMAN. Yes.

Col. NEWCOMER. We have a later law than that.

The CHAIRMAN. What is it?

Mr. BOOHER. There is a later law.

Col. Newcomer. Section 9 of the act of August 8, 1917, amended that act.

The CHAIRMAN. Amended this?

Col. Newcomer. Yes; so as to take in States as well as municipalities and other corporations. Whenever any local body wishes to secure land in connection with any work of river and harbor improvement, the power of eminent domain of the Government can be exercised by protecting the Government against any cost. But that does not meet this situation. That simply means that the Government could institute the necessary proceedings, instead of the locality.

Mr. Booher. Couldn't we get an act along the same lines that would

meet this situation?

Col. Newcomer. What he wants is this: The authority of the Secretary of War to enter upon the lands upon beginning the proceedings without awaiting the results. This is an authority not given in any of the Federal laws. A number of the States have it where the authorities exercising the power of eminent domain can enter upon the lands without awaiting the result of the condemnation proceedings, through giving a bond or making a deposit or some other method.

The CHAIRMAN. I may say there that the engineers wish to render any advisory aid in their power; but I would suggest, Captain, from all the information that is available now, that the real remedy lies with the Legislature of the State of California, unless your laws already cover it.

Mr. Osborne. I don't know whether the laws cover it or not. The difficulty in putting it up to the legislature is that the legislature does not meet until a year from now. Our legislature does not meet this

vear.

Col. Newcomer. We, of course, have no objection to any provision that is considered legally practicable, which still would leave upon

the locality the actual cost of the work.

Mr. Osborne. We do not want to avoid that, or do anything that will in any way put the United States to any risk whatsoever. What we do want is to get at the work. We are ready to comply with the law, but we want to get at the work. It is of very high importance that we get at it.

Col. Newcomer. Have any proceedings been begun yet by the

locality to secure these lands?

Mr. Osborne. I don't know just what has been done, but I presume there has. Just where they will have to bring condemnation proceedings, I don't know. People are often unreasonable about

these things. The work will have to go through quite a bit of private property and over to a corner of the city of Long Beach.

Col. Newcomer. Yes.

Mr. OSBORNE. The proceedings may stretch out for years, and in

the meantime we are wasting money and losing time.

The CHARMAN. Is it possible that you may find some existing law of the State of California that provides that where condemnation proceedings are entered into for a public purpose the power is given to enter upon the property either in advance of the award or pending any appeal that may be taken; and, if so, that it would meet the situation which you are confronted with here? At any rate, as title to the property is not to be given to the United States, the remedy lies with your law; and if the existing law is not adequate, then a proper law might be enacted.

Mr. OSBORNE. I think it is the intention of our people to turn it over to the United States and give bond. I do not think they were

to hold it.

The CHAIRMAN. Well, I am not so sure about that. Mr. Osborne. That is their intention, I believe.

The CHAIRMAN. I am not so sure that the United States is to take it over.

Mr. Osborne. Well, that is another thing; but speaking about what their intentions are, that is what I believe them to be. The work, of

course, is a public work, as a part of the harbor.

Col. Newcomer. The question, to my mind, is merely a legal point as to procedure, whether or not it is the proper thing to do under the particular circumstances. I don't really know whether Congress has the power to direct the Secretary of War to enter upon lands, unless the Government is acquiring them. It would be a good thing to have such authority. Possibly a general item could be framed giving this authority, and at the same time covering this.

The CHAIRMAN. It is a matter for careful thought; but I would suggest that the Federal Government might be confronted with this obstacle: The landowner might set up in bar of the proceeding to condemn that this was not a public purpose for the United States,

however public it might be.

Col. Newcomer. I do not think that could be maintained. It is for the protection of the harbor.

The CHAIRMAN. On that theory, that might be so.

Col. Newcomer. But whether it is possible that the property owner night be able to enjoin the Secretary of War from entering upon the land before it is acquired is another question.

Mr. Osborne. I would like to put these two proposed provisions in

the record, so that they may appear in the report.

The CHAIRMAN. If they are in shape you may hand them to the clerk.

Mr. Osborne. Very well.

With a view to expediting the completion of the project adopted by river and harbor act approved July 27, 1916, for the protection of Los Angeles and Long Beach Harbors, in accordance with the report printed in House Document 462. Sixty-fourth Congress, first session, as soon as the Secretary of War shall have received satisfactory assurances from local interest of compliance with the conditions set forth in said document, he is authorized to direct immediate entry

upon the land required for right of way, the land to be purchased by agreement, if practicable, otherwise by condemnation, in accordance with the provisions of chapter 3628, approved June 29, 1906, entitled "An act to amend an act entitled 'An act authorizing the condemnation of land or easement needed in connection with work of river and harbor improvements at the expense of persons, companies, or corporations' approved May 16, 1906," but all adjustment of title, easement, damage, and compensation shall be accomplished without delaying prosecution of the work.

The Secretary of War is hereby authorized to enter into a contract, or contracts, for such materials and labor as are necessary to complete the project for the protection of Los Angeles and Long Beach Harbors from silt, adopted by the river and harbor act approved July 27, 1916, in accordance with the report printed in House Document No. 462, Sixty-fourth Congress, first session, to be paid for as appropriations may from time to time be made by law, not to exceed in the aggregate \$1,080,000, inclusive of the amount heretofore appropriated (\$500,000)

propriated (\$500,000).

The CHAIRMAN. There is no estimate for San Luis Obispo. Were any funds asked for for that?

Col. Newcomer. No work is contemplated or needed there.

Mr. Osborne. There is some considerable business done there, isn't

Col. Newcomer. Yes.

Mr. Osborne. I want the committee to help out on this thing. We have our work there, the river is still running, and we have the silt.

The Chairman. I think that is a matter to be worked out between yourself, as representative of the local people, and the Engineering Department—mostly the local authorities. You have certainly done

all you could with reference to the situation.

Mr. OSBORNE. As far as I know, the State of California or the county of Los Angeles, can take possession of that ground; presuming there is a law which permits them to do it. I think very likely there is. I am not a lawyer. Supposing this were done, could the Secretary of War go on with this work?

Col. NEWCOMER. That again is a legal question. I judge that he

could.

The CHAIRMAN. There is no doubt about that, I think.

Col. Newcomer. That right could be transferred to the Federal Government.

The CHAIRMAN. We have now come to the first San Francisco, Cal., district. The first item is Oakland Harbor, \$4,000, for maintenance, and \$100,000 for further improvements. I should be glad

to hear from you on that, Colonel.

Col. Newcomer. That small item for maintenance is mainly for the current expenses for oversight or supervision of the harbor. The \$100,000 item, for further improvement, is for the completion of the tidal canal from the inner harbor to San Leandro Bay. It is an element of the project upon which we have entered with funds already appropriated, and this amount is required to complete it. This tidal canal was originally intended merely to connect this body of water with the harbor, so as to get the benefit of tidal flow for the maintenance of the channel in the harbor, but now it has become a commercial proposition as well as one for the maintenance of the harbor.

The CHAIRMAN. Will this \$100,000 complete that project?

Col. Newcomer. No, sir. That completes only this element of the project. Further funds would be needed if we were to complete the

main harbor channel to its full width. This was dredged its full

depth, but not the full width.

The CHAIRMAN. That is the main harbor. Do you think \$100,000 will meet all immediate commercial needs in connection with this project?

Col. Newcomer. Yes, sir.
The Chairman. This is the only estimate of appropriation for any of these improvements in the first San Francisco district. I will direct your attention, Col. Newcomer, to each one in order that we may have in the record a statement of the reason as to why no estimate is made. San Francisco Harbor?

Col. Newcomer. The available balance is about \$26,000 and is con-

sidered sufficient for the next fiscal year.

The CHAIRMAN. Redwood Creek, Cal.

Col. Newcomer. In that case there is a balance of about \$10,000, which we think will suffice for the next fiscal year, as considerable maintenance work has recently been done there.

The CHAIRMAN. Richmond Harbor, Cal.

Col. Newcomer. This is a case where the local interests are to cooperate and the conditions of local cooperation have not yet been cleared up sufficiently to permit us to proceed with the work for which we have an appropriation of \$100,000. No additional funds are requested for the coming fiscal year.

The CHAIRMAN. If the conditions of local cooperation are complied with within a reasonable time, will this be sufficient for the coming

Col. Newcomer. I think so, because one of the conditions of local

cooperation is that they must supply one-half of the funds.

Mr. OSBORNE. I would state that Mr. Curry, who represents that district, is very ill just at the present time, and I have not talked with him about that. I know he is very much interested in it.

The CHAIRMAN. San Pablo Bay. There is no estimate submitted

for that.

Col. Newcomer. We found that the dredge which was built for that work restored the channel at much less expense than we expected, so that we have considerable funds on hand, which are concidered sufficient for the next fiscal year.

The CHAIRMAN. San Pablo Bay to Mare Island.

Col. Newcomer. That is the work which was authorized last session provisionally, if required for naval needs. It was then expected that some additional depth would be needed up to the navy yard, but the naval commission appointed has reported adversely upon the proposition of any greater depth than 30 feet.

Mr. Osborne. Isn't that somewhat dependent upon the Helm

naval-defense proposition?

Col. Newcomer. They have made their report.

Mr. OSBORNE. The question is whether it will be adopted by

Col. Newcomer. They are proposing to have a base in San Fran-

cisco Bay, where they have deep water.

Mr. Osborne. I know. We are trying to get it up in this Congress, but whether we are going to be able to do it or not I don't know.

Col. Newcomer. I understood that the Navy Department was opposed to doing this work up here. The appropriation is there, available for that if it is decided to deepen the channel.

The CHAIRMAN. There is \$330,000 available now.

Mr. OSBORNE. I know.

The CHAIRMAN. Suisun Channel, Cal.

Col. Newcomer. A balance of about \$8,000 is what we have, and that is considered sufficient for the next fiscal year.

The CHAIRMAN. Napa River.

Col. Newcomer. In that case also the available funds, nearly \$12,000, are sufficient for the maintenance and operation of the existing project.

The CHAIRMAN. Petaluma Creek, Cal.

Col. Newcomer. There we have a balance of about \$22,000, which is sufficient for the present project. Both of these items, Napa River and Petaluma Creek, are places where additional improvements have been recommended, which were included in the bill a couple of years ago and were later dropped out.

Mr. OSBORNE. There is quite a commerce there.

Col. Newcomer. Yes.

Mr. OSBORNE. It amounts to something like \$16,000,000. Mr. Lea was speaking to me about that. He has spoken to you about that, too, I believe.

Col. Newcomer. He has spoken to me about it; yes. We have just submitted a report of the survey on that creek which will reach Congress in the near future.

The CHAIRMAN. Monterey Harbor, Cal. There is no estimate

made for that.

Col. Newcomer. In that case an appropriation was made by the Government of \$200,000 for the work to be undertaken contingent upon certain local cooperations. The required contribution by the local interests was appropriated by the State. That was one part of the local cooperation required. The other was assurance satisfactory to the Secretary of War that a railroad would be built from the San Joaquin Valley, because it was felt that only by tapping the San Joaquin Valley would this harbor be justified. That latter condition has not as yet been satisfied. There has been no assurance which the Secretary of War has considered satisfactory concerning the construction of that railroad.

The CHAIRMAN. Humboldt Harbor and Bay, Cal. It is divided into two items of improvement, rebuilding the jetties, and channel in front of Eureka, but no estimate was made for either one of those

sections of the improvement.

Col. Newcomer. We have there abundant funds on hand to take are of the maintenance and for the work during the next fiscal year. The work on the jetties has been suspended on account of the great increase in the cost of material. The jetties are, in fact, in satisfactory condition, so that it was felt that further prosecution of the work at this time was inadvisable.

Mr. Osborne. Are you doing any work on that bar?

Col. Newcomer. Nothing on the bar.

Mr. Osborne. It is a rough bar.

Col. Newcomer. Yes; it is.

The CHAIRMAN. There will be brought to the attention of the committee a letter—I mention it now because we are in this district—on the matter of the new project for Crescent City Harbor, Cal., where the local interests are to contribute.

Mr. Frear. To go into this bill?

The CHAIRMAN. It is for consideration with this bill; it involves no appropriation.

Mr. Frear. It does not involve any appropriation?

The CHAIRMAN. No; Mr. Lea came before the committee on that. Mr. Frear. Do they put up all the money that is necessary?

The Chairman. They put up all that is necessary now—\$200,000. There is no appropriation in this bill for it.

Mr. Osborne. Crescent City Harbor would open a wonderful

Mr. Frear. How do they get their appropriation—from the Gov-

ernment?

The CHAIRMAN. No; they are willing to put in there \$100,000 additional, making \$200,000, which will be sufficient for the work. The whole cost will be what?

The CLERK. It will be \$490,000.

Mr. Frear. They put in \$200,000 at this time.
The Chairman. Yes.
The Chairman. The third San Francisco district. The first item, page 46, is Mokelumne River, Cal., \$500 for maintenance.

Col. Newcomer. That is for snagging and keeping the channel

clear.

The CHAIRMAN. The tonnage in the river is not very high. The next item is \$10,000 for Sacramento River, for maintenance. Is that a sufficient sum there?

Col. Newcomer. That, in addition to the available funds, is considered sufficient for two years. It costs about \$50,000 a year to operate the plant for snagging and keeping in repair the channel works. We have \$90,000 on hand, and \$10,000 additional is needed for the two years.

The Chairman. In that group there are no estimates for appropriations for Stockton and Mormon Channel and Fremont Channel and

McLeod Lake.

Col. Newcomer. Part of that is in the San Joaquin River.

The CHAIRMAN. Yes.

Col. Newcomer. We have a balance of about \$32,000 for the items you mention and about \$112,000 for the main channel in the river itself. Those funds are considered sufficient for the coming fiscal

The CHAIRMAN. For both sections of the work?

Col. Newcomer. Yes, sir.

The CHAIRMAN. Feather River, Cal. There is no estimate.

Col. Newcomer. We have there sufficient funds to provide for the work. That is a case where only a small amount of work was authorized, the local interests cooperating. It is not apparent that we will need anything further.

(Whereupon, at 1.15 o'clock p. m., the committee adjourned until

10.30 o'clock Wednesday, January 16, 1918.)

COMMITTEE ON RIVERS AND HARBORS. House of Representatives, Wednesday, January 16, 1918.

The committee met at 10.30 a.m. After concluding hearings on the Cumberland River improvement, the committee resumed the hearings on the estimates.

## STATEMENT OF COL. H. C. NEWCOMER, CORPS OF ENGINEERS, UNITED STATES ARMY-Continued.

The CHAIRMAN. We will now proceed with the consideration of the report of the engineers upon the bill. We will first take up the first Portland, Oreg., district, the first item there.

Mr. Osborne. Before we leave the San Francisco district, I want to inquire of Col. Newcomer if the people of these various localities

are pressing for anything further.

Col. Newcomer. In the first San Francisco district there are several localities where no funds are required. Of course, no estimates are submitted for them. There are also several localities where projects have been recommended, but no estimates are submitted because they are not yet authorized by Congress.

The CHAIRMAN. What districts? Col. Newcomer. They are principally Redwood Creek, Napa River, and Petaluma Creek. There is also a new project urged up there for Suisun Bay. These would be all new projects, which, of course, can be considered by the committee when they come to that subject.

The CHAIRMAN. Anything more, Captain?

Mr. OSBORNE. That is all. There is nothing in the third district?

Col. Newcomer. No, sir.
The Chairman. Recurring to the first Portland, Oreg., district, the first item there, for which an estimate for appropriation is made, is Coos Bay, Oreg., which is an estimate of \$40,000 for further improvement, including maintenance. I would be glad to hear from you as to that, Colonel.

Col. Newcomer. That is the amount that is estimated that is necessary to provide for the operation of the dredge Michie, which is used at Coos Bay to provide a channel across the bar. That amount, with the funds on hand, is considered sufficient to last through the next fiscal year, as well as for the present one. That is substantially

all for maintenance.

١

The CHAIRMAN. That is the only estimate for appropriations for any improvement in the first Portland. Oreg., district. I will now direct your attention to the several improvements there for which no estimate is made, with a request for reasons why estimates were omitted. Coquille River, Oreg., has no estimate.

Col. Newcomer. We have there a balance of a little over \$45,000 remaining, principally from the appropriation for jetty work, which has been completed, and this sum is considered sufficient to take care

of the work for the next year.

The CHAIRMAN. There is no estimate for Coos River, Oreg. Col. Newcomer. The balance there, of about \$6,000, is considered sufficient for the next fiscal year.

The Chairman. There is no estimate for Siuslaw River, Oreg. Col. Newcomer. There we have a balance of nearly \$17,000, which is sufficient to provide for the urgent needs for the next year.

The CHAIRMAN. Yaquina River has no estimate. Col. Newcomer. We have a small balance there, \$3,000, which is considered sufficient for the existing project. Of course, my remarks in all these cases refer to existing projects. At several of these points additional work is desired by local interests, but in all cases they would constitute new projects.

The CHAIRMAN. There is no estimate for Tillamook Bay and Bar,

Col. Newcomer. In that case there, there is a balance of \$66,000 available for the fiscal year 1918, and that will suffice also for the next fiscal year.

The CHAIRMAN. There is no estimate for Nehalem River, Oreg. Col. Newcomer. There is a balance of \$42,000, which is sufficient for the two fiscal years.

The CHAIRMAN. In the next group in this district for which no estimate is made is the Cascades Canal and Columbia River, Oreg.

Col. Newcomer. That work is about complete. There is a balance remaining of \$8,000.

The CHAIRMAN. There is no estimate for The Dalles-Celilo Canal,

in Oregon.

Col. Newcomer. There is no estimate. The canal is now being maintained under the indefinite appropriation for operating and

The CHAIRMAN. I note the balance available on July 1. Does your statement imply that that balance will not be used for the purpose of

maintenance?

Col. Newcomer. It will not be used for maintenance. It was appropriated for construction and the maintenance is adequately taken care of by the indefinite appropriation. It appears that while the main work is complete and is being operated there is still some excavation of a lower canal entrance in order to provide the full project depth, and there are a few items, such as payment for right of way, which will require a portion of that fund. There will probably be an unexpended balance after the entire completion.

The CHAIRMAN. There is no estimate for the Columbia River and

tributaries above Celilo Falls to the mouth of the Snake River.

Col. Newcomer. There we have a balance of \$49,000, which is considered sufficient for operating the plant and taking care of the channel, which consists mainly in the removal of bowlders in the shoal places in the river.

The CHAIRMAN. There is no estimate for Snake River, Oreg.,

Wash., and Idaho.

Col. Newcomer. There we have a balance of over \$29,000, which is

considered adequate for the next year.

Mr. Osborne. Col. Newcomer, may I make an inquiry? You mention some places where they are asking for new projects. What places are those?

Col. Newcomer. Mr. Hawley, as you will recall, came before the committee and submitted a list of those. There is Coquille River, which is covered by a report in House Document No. 70, Sixty-fifth

Congress, first session; there is a new project for the inner harbor at Coos Bay, covered by House Document No. 325, Sixty-fifth Congress, first session; and a new project for Siuslaw River, given in House Document No. 173, Sixty-fifth Congress, first session.

Mr. Osborne. May I ask a question right there in regard to that

project?

The CHAIRMAN. Better let him complete his statement. There are others?

Col. Newcomber. One or two others.

The CHAIRMAN. Suppose you let him complete them and then you may recur to the points you wish to take up.

Mr. Osborne. Very well.

The CHAIRMAN. Go ahead, Colonel.

Col. Newcomer. Yaquina Bar and Harbor, covered in House Document 179, Sixty-fifth Congress, first session. That is all, along the coast there. He also mentioned a new project in the Clatskanie River, in House Document 698, Sixty-fourth Congress, first session.

Mr. Osborne. I notice in this report on the Siuslaw that there is a small amount on hand, and I notice that the people there contributed

\$328,000.

Col. Newcomer. Yes, sir. They contribute 50 per cent to the con-

struction of the jetties.

Mr. Osborne. They ask there for an increase of \$35,300, I believe. I just wanted to call attention to the fact that the only money they have is practically and properly their own money.

The CHAIRMAN. We will now take up the second Portland, Oreg., district; the first item being an estimate for \$250,000 for the further improvement and maintenance of the Columbia and lower Willamette

Rivers, below Vancouver and Portland.

Col. Newcomer. That item is for the operation of the dredges principally, for the maintenance of the 30-foot channel from Portland to the mouth of the Columbia. We consider that the amount on hand will provide sufficient money for maintenance this fiscal year and also for the construction of some of the training works. We will need a number of training works there for the preservation of the channels. This \$250,000 does not provide for the continuance of such construction for the next year. We thought it would suffice to provide only the funds necessary for the operation of the dredges.

The CHAIRMAN. Is that depth from Portland to the sea being fairly

well maintained?

Col. Newcomer. I do not think they have actually been able to maintain more than 27 feet so far, but the channel has been practically secured at most points. It fills up rapidly at freshet stages at a number of points and has to be dredged continuously.

The CHAIRMAN. That is the only estimate in that group. We come now to the second group in the second Portland, Oreg., district, and

the first estimate of that group is of \$1,000 for the Clatskanie.

Col. Newcomer. That is the estimated amount necessary in addition to the available balance for the maintenance of the existing project for the next two years. Of course it does not provide for the new project.

Mr. Dupré. What is that?

Col. Newcomer. That is a case where they want one or two cut-offs, and a slight extension is desired so as to reach up to the town of Clatskanie.

The CHAIRMAN. The next item for which an estimate is made is for the Lewis River, Wash.; \$4,500 for maintenance and \$13,500 for

further improvement.

Col. Newcomer. That is the sum estimated as an advantageous expenditure for the next fiscal year for the maintenance and the prosecution of the existing project, which provides for dredging and for construction of some training works for the protection of the channel. It provides substantially the same sum for next year that we have for this year.

The CHAIRMAN. The next item for which an estimate is made for

an appropriation is the Cowlitz River, \$6,000 for maintenance.

Col. Newcomer. That is necessary for the work of dredging and maintenance of the works and dikes of that river for the fiscal year. We made an allotment there of \$5,000 from the cash balance that was left from the 1915 lump-sum appropriation for the work of repairing the dike which was destroyed by a flood.

The Chairman. The next estimate is for \$500 for Grays River.

Wash.

Col. NEWCOMER. That is the annual amount required for the

snagging of the river.

The CHAIRMAN. Now, as to the several improvements in the second Portland (Oreg.) district, for which no estimate is made; the first one is Columbia River at the mouth, Oregon and Washington.

Col. Newcomer. There we have quite a substantial balance of \$323,000 on hand; that is sufficient to provide for the operation of the dredge which is used on the bar at the mouth of the Columbia River. The jetty work there has been discontinued with the understanding that possibly nothing further would be required.

The CHAIRMAN. There is no estimate for an appropriation for

Willamette River above Portland and Yamhill River, Oreg.

Col. Newcomer. We have in that instance \$250,000, which is considered sufficient for the two fiscal years.

The CHAIRMAN. There is no estimate for the Willamette River

at Willamette Falls, Oreg.

Col. Newcomer. At its last session Congress appropriated sufficient funds for the completion of the necessary changes in the canal at those falls, which the Government has recently purchased. We have sufficient funds on hand there for the necessary work.

The CHAIRMAN. If there are no further inquiries regarding this

district---

Mr. Osborne. I wanted to ask the Colonel if there were any esti-

mates made for new projects here.

Col. Newcomer. Well, there are several, I think, along the Columbia River. One is Lake River and Bachelors Slough, Wash: that is a tribuatary water of the lower Columbia. This list does not have all that we have recently considered. I know one at Astoria, a project has been considered. I think there was an unfavorable report upon it. There was also a report with reference to a point on the Columbia River which is below the mouth of the Willamette Slough; at St. Helens they want some work done there. In that case the report was adverse to the project.

Mr. Booher. You say it was adverse to the improvement at Astoria?

Col. Newcomer. Yes, sir.

Mr. Booher. What did they want there?

Col. Newcomer. They wanted a channel into Youngs Bay, which extends back of Astoria. At St. Helena they wanted a deeper channel to the town front across a shoal which obstructs the approach. The depth on the shoal is about 19 feet and they want 24 feet. I do not now recall any favorable report for an additional improvement, Captain, in that district, except the one that I first mentioned, given in Mr. McGann's list, and the one at Clatskanie.

The CHAIRMAN. We now take up the Seattle (Wash.) district. There do not appear to be any estimates of appropriation either for maintenance or further improvement of any of the improvements in

that district.

Col. Newcomer. I would like to suggest one, however, Mr. Chairman.

The CHAIRMAN. Certainly.

Col. Newcomer. It is an item for Puget Sound and its tributary waters, Washington, in the second group. We just had a report from the district engineer that the snag boat which was built for that work was sunk by striking a pier of the railroad bridge while coming down the Skagit River. The cost of raising that boat and repairing it makes it necessary to ask for an appropriation that we did not anticipate. I suggest an appropriation of \$10,000 for that work.

Mr. OSBORNE. What item is that?

Col. Newcomer. Puget Sound and its tributary waters, the leading item in the second group.

The CHAIRMAN. To be used for the purpose of raising a sunken

boat?

Col. Newcomer. Yes; and repairing it. It was a little questionable whether the amount on hand was enough, anyhow, but I thought we could probably get along, Under present conditions, however, I think this additional sum of \$10,000 is needed.

Mr. OSBORNE. These items that Mr. Hadley brought to the atten-

tion of the committee, what about them?

Col. Newcomer. Those, as I recall now, were the Skagit River, some additional improvement, and the Anacortes Harbor. The Skagit River is under improvement now, but the Anacortes Harbor would be altogether a new project. The work desired on the Skagit River is some contraction work at a point where the shoals form persistently, and they want additional depth maintained by this work. The river there overflows the surrounding lands during flood stages except as it is kept off the land by the construction of levees. They have built these levees and they are quite close to the bank. It was felt that the building of some training dikes in the river might possibly lead to some attack on the banks, so the condition was made that the local interests would be responsible for the maintenance of the levees.

The Chairman. We will now recur to those improvements in the Seattle, Wash., district, for which no estimate is made, for the purpose of securing a statement from the Colonel of the reasons therefor.

Col. Newcomer. The first is Willapa River and Harbor, Wash-We have in that case practically \$126,000, which is considered sufficient for the two fiscal years.

The CHAIRMAN. There is no estimate of appropriation for Grays

Harbor and Bar entrance, Wash.

Col. Newcomer. In that case you will recall Congress has adopted a project for the maintenance of the entrance channel by dredging; that involves providing a dredge for that point, but the present shipping conditions are such that it was not advisable to construct a dredge at this time, so Congress authorized the use of another dredge for that work, and we have sufficient money for that purpose. The money on hand will suffice for the operation of the Government dredge that can be borrowed for the work.

The CHAIRMAN. There is no appropriation for Grays Harbor. inner portion, between Aberdeen and the entrance to said harbor and

Chehalis River, Wash.

Col. Newcomer. There we have a balance of \$8,000, which is considered sufficient. It is mostly used in inspection and supervision and surveys.

The CHAIRMAN. There is no estimate for Hoquiam River, Wash. Col. Newcomer. We have a small balance on hand there of \$1,365,

which is considered adequate for the next year also.

The CHAIRMAN. Now, coming to the next group of Seattle, Wash., district, there is no estimate for the waterway connecting Port

Townsend Bay and Oak Bay, Wash.

Col. Newcomer. That work is in fair condition or will be placed in fair condition with the funds on hand, so that it is not estimated that any additional appropriation will be required during the next fiscal year.

The CHAIRMAN. There is no appropriation for Olympia Harbor.

Wash.

Col. Newcomer. The funds on hand there are considered sufficient for the next fiscal year. I might state that Olympia Harbor is a place where they desire additional improvement, but it has not been recommended yet.

The CHAIRMAN. There is no appropriation for Tacoma Harbor. Col. Newcomer. The balance of \$5,600 is sufficient for the next fiscal year.

The CHAIRMAN. Two fiscal years?

Col. Newcomer. Yes, sir.

The CHAIRMAN. The waterway connecting Puget Sound with

Lakes Union and Washington, there is no estimate.

Col. Newcomer. That is the Lake Washington Ship Canal, where we have a balance of \$413,000, which we consider sufficient for the work urgently needed. That is deepening the entrance to the lock which has been built by the Government and the possible construction of some revetment along the canal banks above the lock, where the channel was constructed by local interests. It was estimated that quite extensive revetment would be required but since filling the canal it has been found that it would be much less than anticipated.

The CHAIRMAN. That is a work in which there is a large amount of

local contribution?

Col. Newcomer. Yes, sir.

The CHAIRMAN. I was much impressed last night in reading the report sent out by the National City Bank of New York, in which they refer to the utility of that waterway.

Mr. OSBORNE. What is the depth of water in the canal?

Col. Newcomer. Twenty-five feet was the required depth, but they have actually provided 30. It was anticipated that 30 would be provided eventually, but the local interests thought that it should be provided at once.

The CHAIRMAN. There is no estimate for the Snohomish River,

Col. Newcomer. We have a balance of about \$28,000, which is deemed sufficient for the work necessary for the next fiscal year, as well as this.

The CHAIRMAN. There is no estimate for the Skagit River.

Col. Newcomer. We have there a balance of about \$20,000, which is deemed sufficient for the project in the next fiscal year.

The CHAIRMAN. There is no estimate for the Swinomish Slough. Col. NEWCOMER. We have a balance there of more than \$5,000,

which is deemed sufficient for the present.

The CHAIRMAN. There is no estimate for Bellingham Harbor. Col. Newcomer. There is no estimate necessary there. The funds are practically exhausted, but there is no present need for work.

The CHAIRMAN. There is no estimate for Columbia River between

Wenatchee and Kettle Falls, Wash.

Col. Newcomer. All the work that has been deemed advisable on that part of the river has been accomplished, and we do not consider any further work necessary at this time.

The CHAIRMAN. I see there is no data as to the commerce on that

improvement.

Col. Newcomer. There is very little, if any, commerce on that.

is a detached section of the Columbia River.

The CHAIRMAN. Now, there is no estimate for the independent projects of Polson Bay, and Flathead Lake, Mont.

Col. Newcomer. No work is necessary at this time on that im-

provement.

The CHAIRMAN. There is no estimate for the two projects grouped

for Alaska, Apoon mouth of Yukon River, Alaska.

Col. Newcomer. The work authorized by Congress at its last session at the Apoon mouth of Yukon River has not yet been undertaken. It was estimated to cost \$45,000. The district engineer has submitted a report indicating that it would be inadvisable to undertake that work now because it is found that the shoal is so long and the cost of removal of this crest, which extends for a couple of miles, is so great, especially on account of the necessity of digging so far and dredging so deep to provide for the draft of the dredge itself, and with so little benefit to traffic, that the work probably should be abandoned. The matter has been brought to the attention of the navigation interests that use that channel, and also to the attention of the Delegate from Alaska, and without any objection on their part so far, at least for an indefinite postponement of the work, so that work will probably not be done.

The CHAIRMAN. I believe we adopted a new project there?

Col. Newcomer. Yes; that is it; a new project estimated to cost \$45,000.

The CHAIRMAN. And the inadvisability of prosecuting that new project is now under consideration, as I understand it?

Col. Newcomer. Yes, sir.

The CHAIRMAN. And therefore you make no estimate?

Col. Newcomer. We make no further estimate. The amount appropriated was the entire amount estimated to complete it, but it is thought perhaps inadvisable to expend any portion of that sum.

The CHAIRMAN. There is no appropriation for Nome Harbor,

Col. Newcomer. That project was in the last act, and the appropriation of \$105,000 was the amount estimated to complete the work. The work has not yet been begun, as the season up there is very short. Specifications are now prepared with a view to asking for bids for the work this next season.

The CHAIRMAN. Are there any further inquiries regarding the

improvements in the Seattle, Wash., district?

Mr. Osborne. I would like to ask the colonel if, besides the two projects asked for by Mr. Hadley, there are any other projects in that district?

Col. Newcomer. There are several favorable reports before Congress in connection with work that will be handled by this district; one, I recall, is Dry Straits, Alaska. A favorable report has been made there for providing an inside channel on the route from Seattle to Alaska, at Dry Straits, Alaska, upon which Congress has not yet acted. And then at Seattle there is also an urgent request being made for improvement of a part of the harbor in the Sound; that, however, is not before Congress in any form yet. There are two favorable reports for points on Puget Sound that I recall, but I forget the names just at present.

Mr. Osborne. Is Heverick one of them?

Col. Newcomer. No. sir.

Mr. Osborne. You might add that later.

Col. Newcomer. Yes; I can have a full list of these points, of course, upon which reports have been submitted to Congress, and where they have not yet been adopted.

Mr. OSBORNE. I would be glad if you would. I wanted to ask about the Yukon River—if you have done anything in the Yukon!

Col. Newcomer. Yes, sir.

Mr. Osborne. I mean above the mouth?

Col. Newcomer. No, sir; only near the mouth. The Chairman. We now take up the Honolulu, Hawaii, district. which are all comprised in one group, and for which no estimates for appropriation are submitted. I will mention each improvement there and ask why no estimate was made. The first is Honolulu Harbor.

Col. Newcomer. We have a balance of \$104,000, which is consid-

ered sufficient for the present need in that case.

The CHAIRMAN. That is on the project adopted in the River and

Harbor bill of August 8, 1917, to be applied to that?

Col. Newcomer. Yes, sir. The present situation about the completion of the former project over there is not wholly satisfactory. We had made a contract at a very low price; that is, a price that was very satisfactory to the Government for the making of the excavation required in the main harbor, providing for 35 feet. The contractor has never yet gotten a dredge on the site, and the work for the quarantine site was so urgent that we had to let that part of the work to another contractor at a price considerably in excess of the contract price. Just what we will be able to do in completing that work has not developed yet, but the harbor is in fair condition for the present needs. We think the funds we have on hand will suffice for that.

Mr. OSBORNE. I believe the contract price was about one-half of what it actually cost?

Col. Newcomer. The contract price was in the neighborhood of 24 cents. The next lowest bid was 53 cents. There were only two bidders.

The CHAIRMAN. There is no estimate for an appropriation for

Kahului Harbor, Hawaii?

Col. Newcomer. We have a balance of \$35,000, which is sufficient for the work in Kahului Harbor. It is expected that the funds already provided will suffice for the completion of that breakwater. There is an unappropriated balance of about \$50,000 of contract authorization which we will not ask for.

The CHAIRMAN. It appears that on July 1 no work was done on the

project adopted in the act of July 27, 1916.

Col. Newcomer. That is true.

The CHAIRMAN. Has any been done since that time?

Col. Newcomer. The contract has now been made. The Honolulu office is so far from headquarters it takes a good deal of time to get the specifications and plans back and forth. There was some discussion as to the location of that breakwater at Kahului Harbor, but finally the work was advertised and the contract made at a very favorable figure which will complete the breakwater at considerably less than the estimated cost.

The CHAIRMAN. The amount available, then, is considered suffi-

cient?

Col. Newcomer. Yes; to complete the project and for necessary

maintenance during the next year.

The CHAIRMAN. There is no estimate for appropriation for Hilo

Harbor, Hawaii.

Col. Newcomer. We have there a balance of about \$163,000 for the prosecution of work on the breakwater. It is doubtful whether we can make any favorable contract with that sum. It is too small to justify a contractor in providing a plant. The original contractor for the breakwater failed, and his contract was completed by the bonding company. They do not wish to remain on the work. They disposed of their plant, and it is probable that we can not get any further favorable figures until we advertise the entire work required to complete that breakwater. I doubt whether it is advisable to do that under present conditions. The breakwater has already been extended sufficiently to furnish considerable protection for the harbor, and while its completion may be justified, we do not feel that we care to ask for it at this time, on account of the high cost of getting a plant over there.

Mr. OSBORNE. Is that the harbor in which there is so much trouble

to land?

Col. Newcomer. Nawiliwili Harbor, I think, is the place you have so much trouble in landing—not here.

Mr. Osborne. Has there been any report on that place?

Col. Newcomer. Yes; there is a report there.

Mr. Osborne. Is there any other report as to the Hawaiian Islands except that one?

Col. Newcomer. I think that is all.

The CHAIRMAN. The committee have felt as to those islands that they deserve special consideration, particularly not being represented on the committee, and if Col. Newcomer is prepared to answer the question now I will ask if the adoption of that new project for Nawiliwili Harbor is regarded in connection with the activities either of the War or Navy Departments as any aid in the prosecution of the war?

Col. Newcomer. It is not one, in my judgment, that would bring it within the class that we adopted last year as a war measure; it is rather, in the class of those that we excluded at that time as being of commercial importance and worthy under ordinary conditions but hardly warranted at this time.

The CHAIRMAN. The primary purpose for the improvement at this

time of that harbor is commercial?

Col. Newcomer. Yes; to give greater convenience in handling the products of the island of Kauai. There were a couple of harbors considered on that island, and Nawiliwili is the one recommended for improvement. That is given in House Document 609, Sixty-second Congress, second session. You will see it was made some time ago; in fact, the report was made in 1912.

The CHAIRMAN. We will now take up the Porto Rico district. There is no estimate of an appropriation made for San Juan Harbor?

Col. Newcomer. The amount appropriated for the new project adopted at the last session of Congress is sufficient to carry on the work for the next fiscal year. The work has not yet begun. It is a question whether we can do it favorably by contract, or possibly better by the purchase or construction of a dredge. But in either case the amount provided is considered sufficient for the next year.

The CHAIRMAN. I believe there is no new project which has been

submitted for the improvement of that harbor in Porto Rico?

Col. Newcomer. No, sir; we just adopted the one—one moment; I think there is a new project recommended across the bay from San Juan.

The CHAIRMAN. Catano Bay?

Col. Newcomer. Yes; it is one of the suburban places, where there is a good deal of passenger traffic, and they want some improvement.

The CHAIRMAN. That is House Document 482, Sixty-fourth Congress, first session. Do you regard the improvement in that new project as essential during the pendency of the war?

Col. Newcomer. I would hardly put it in the essential class.
The Chairman. Now, the California Débris Commission. Will you kindly make a statement as to the status of that and the work of this committee to the work of that commission?

Col. Newcomer. The funds provided for its operations are all carried in the sundry civil bill. The California Débris Commission, in the first place, has general charge of the subject of hydraulic

mining, and an appropriation of \$15,000 has been made to provide for the necessary supervision of hydraulic mining. They are now asking for an appropriation of \$18,000 for the increased activity in that work. And then comes, of course, the flood-control work, which was authorized in the act of March 1, 1917, which also comes under the California Débris Commission. The money for that is provided in the sundry civil bill.

The CHAIRMAN. Neither one of those activities come within the

jurisdiction of this committee at this time?

Col. Newcomer. No, sir; not at this time.

The CHAIRMAN. I notice an estimate of \$300,000 has been made for examinations, surveys, and contingencies of rivers and harbors; will you kindly express an opinion as to the sufficiency of that ap-

propriation?

Col. Newcomer. That was the amount, when we prepared the estimate, that seemed to be advisable to meet the ordinary demands on that item. I have thought since then that possibly it would be well to increase that sum materially in view of the very extensive reductions that have been made in the estimates that the district engineers submitted. We attempt, of course, to provide what we think is essential to take care of the current needs of navigation, but it is quite possible that in some cases the reductions were excessive, and it would be quite well to have a fund such as this that would take care of the current needs. There is, however, this to be said: That we still have a balance of about \$800,000 from that lump sum appropriation of March 4, 1915, which is subject to allotment for any work.

Mr. Booher. Wouldn't that be sufficient?

Col. Newcomer. It possibly will with this amount. I think it would be advisable, however, to increase this item to \$500,000 so as to give us about a million dollar margin over the ordinary needs for this item. It may be well to bring to the committee's attention that some of the items which it included in the list of examinations and surveys probably involved considerably more expense than it anticipated. For instance, you put an item in the act of 1916 which calls for a survey—not a preliminary examination and survey—but a survey of St. Francis River with a view to providing a channel and taking care of the flood waters, etc. That has already involved an allotment of \$60,000 to make that survey. The last act of 1917 had a survey of Black River, Ark., with a view of taking care of the flood waters. An estimate has just come in from the district engineer of \$77,000 as the amount required for that survey. In other words, these flood investigations are of such an extensive character, cover so much territory, including the entire watershed, and especially detailed examination of reservoir sites, which are not usually considered when it is merely a question of navigation, that I think it is very dangerous to call for a survey unless you know what it is going to cost.

In all cases where this committee has called for an examination and survey on such propositions we have looked into the matter to find out what the general situation is, what the probable method of protection would be, and we have prepared estimates of what the full investigation would cost in order to prepare complete plans for full flood control, and then it is sent to Congress and then either this committee, or more properly the Flood Control Committee, I presume, would take that up and find out whether the Government should go to the expense of a full survey. Of course, where a survey is ordered we have no discretion, but must go ahead, regardless of cost, a cost that is often not justified by the navigation interests. It may be a cost that is well justified in view of other interests, the protection of property, etc., but not from the navigation standpoint.

The CHAIRMAN. Colonel, some inquiry may be made in the House as to the uses to which this general appropriation of \$300,000 for examination, surveys, and contingencies of rivers and harbors was made; will you kindly explain the uses made of that general appro-

priation as interpreted by the department?

Col. Newcomer. That provides, of course, primarily for the examinations and surveys authorized from year to year, and in connection with that not only the expenses of the district office and field operations, etc., but of the board of review—the Board of Engineers for Rivers and Harbors; and, in addition to that, it pays such expenses as the printing—no; it used to pay for the printing of the annual report, but that is now carried as an item of printing in the War Department, I think. There is a considerable roll of employees in the office of the Chief of Engineers, which is called the allotment roll, as distinguished from the statutory list of positions which are appropriated for individually. We are authorized to employ up to a certain sum, \$50,000, which is handled from this fund; and then, of course, any other contingency which comes up for which we have no other fund can be handled out of this. The most of it, far the greater part of it, goes to the examinations and surveys.

The CHAIRMAN. If you should have any occasion to recommend any change in this estimate of \$300,000 for examinations, surveys, and contingencies of rivers and harbors, will you advise the com-

mittee?

Col. Newcomer. Well, I will say now that I think it would be well to make that \$500,000, if the committee is willing. Now, if you will permit me, Mr. Chairman, I would like to call attention to one or two items where reports have been received from the district engineer indicating that a small additional amount should be appropriated. One of these is Little Rock district, Little Rock, Ark. The first is in the Vicksburg district.

Mr. Booher. What page is that?

Col. Newcomer. Page 30. I think I called attention to the \$15,000 for the Yazoo River.

The CHAIRMAN. Yes.

Col. Newcomer. The next is Little Rock, Ark., page 31. There we need an additional item of \$1,000 for Current River, Ark. and Mo., and \$4,000 for the St. Francis and L'Anguille Rivers and Blackfish Bayou, making \$5,000 for that group.

The CHAIRMAN. The \$5,000 is for the Current River and St.

Francis and L'Anguille Rivers?

Col. Newcomer. Yes, sir. That will probably be sufficient by making some redistribution of the balance on hand for that group. We find, for instance, that the White River has more than it needs, and we can divert some of that to the other streams, but we would still

need the amount of \$5,000 estimated for those two rivers. I guess

that is the only one I have not mentioned before.

The CHARMAN. I would like to direct your attention to the improvement of the Livingstone Channel, Detroit River, Mich. An urgent telegram has been received by the chairman from Mr. Livingstone, of Detroit, who is president of the Lake Carriers' Association, asking for the status of that improvement, and I will ask you kindly to give the status of that improvement under existing projects; also, what is proposed in the new project, and any recommendation, if you are prepared to do so, as to the urgency of the new project. Do you prefer to make a statement of that later?

Col. Newcomer. Just as you say.

The CHAIRMAN. Are you prepared now?

Col. Newcomer. Yes; I think so.

The CHAIRMAN. I think, in view of this urgent request, we will ask the Colonel for an expression now.

Mr. Osborne. On what page is that?

Col. Newcomer. Page 41 of your committee book. It is a channel in Detroit River known as Livingstone Channel. That channel has a depth of 22 feet and a width of only 300 feet for a portion of its length and another place a width of 450 feet. It is a case where two channels are provided, one for the upstream traffic and one for the downstream traffic. This narrow place in the Livingstone Channel for the downstream traffic is in a rock cut and there are cross currents sometimes which make it difficult to control boats, and they feel a widening of that channel is very much needed. An estimated cost of the work proposed is \$2,570,000. That matter has been investigated and has been reported upon favorably, the chief of engineers recommending a widening of the rock cut to 450 feet throughout part of it is now 450 feet—and deepening to 22 feet and widening to 800 feet the two-and-one-half-mile section lying west of the Detroit River Light. The latter is really not a part of the Livingstone Channel proper, but is an extension of it into Lake Erie—that is, coming into the lake—where it is felt a greater width and depth are desirable.

The question of the urgency of that is one that does not appeal to me as being essential as a war measure. We have already provided, of course, very materially increased facilities by the construction of the Livingstone Channel at a high cost. While this additional improvement is doubtless a desirable one I question whether it comes within the class of those that should be adopted as a war measure. Of course, the traffic on the lakes is so tremendous that every reason-

able provision should be made for that traffic.

Mr. Osborne. Did they ever have any accidents there?

Col. Newcomer. I don't think the accidents there have been serious. They have had a few boats striking the side of the channel, I think, but no serious accidents. They feel there is a possibility of it, even to the extent of blocking the channel. If a boat should get out of control and block the channel they would then have to send the traffic through the other channel for both upstream and downstream boats.

Mr. Osborne. It is a narrow channel, and has a tremendous amount of traffic at times during the navigation season?

Col. Newcomer. There is a great deal of traffic. Here and up at the Soo there is tremendous traffic.

Mr. Booher. Isn't this a wider channel than at Buffalo?

Col. Newcomer. Oh, yes; a wider channel.

Mr. Booher. While you think it desirable you hardly think it comes within the essential war measures?

Col. NEWCOMER. It hardly appeals to me as that.

Mr. Osborne. They have to bring down all the iron ore destined

to Lake Erie ports that way?

Col. Newcomer. Yes, sir. Understand me, of course, I do not wish to cast any doubt on the desirability of the improvement at all, but simply its advisability as a war measure I question at this time.

(Thereupon the committee adjourned to meet at the call of the

chairman.)

## APPENDIX A.

[Telegram from Mr. John Sealy, president, to Col. Walter Gresham, relative to the owner-ship and operation of the Galveston Wharf Co.]

GALVESTON, TEX.. February 21, 1918.

Col. WALTER GRESHAM,

Care New Ebbitt House, Washington, D. C.:

Report of hearing before Committee on Rivers and Harbors relative improvement of Galveston Harbor and of your argument before said committee just received by us. You should state to committee that the Galveston Wharf Co. is a private corporation in which one-quarter of the stock and one-third of the property is owned by the city of Galveston. Our tracks connect with all trunk lines entering this section of the country and we are in position to connect with any other new lines coming into this territory; but our company is entirely independent of any of said lines, none of our stock being owned or controlled by said trunk lines. We operate as a common carrier, furnishing same facilities to all railroads connecting with us, and our wharves and elevators are public wharves and elevators, although operated by us. Any concern desiring warehouse, elevator, or wharfage facilities can obtain same from us on same basis as others now doing business with us. Our company has no interest in any steamship lines doing business at our wharves, but we furnish to all ships equal facilities, and any new shipping concern will be cared for on same basis and at same charges as those now doing business here. Our tariffs of railroad, wharfage, and elevator charges are filed with the Texas State Railroad Commission and also with the Interstate Commerce Commission, covering all intrastate, interstate, and foreign movements. No changes in our tariffs can be made or new rates promulgated without consent of both of said commissions, and any new tariffs must be filed with them. Please see that these facts are put into records of committee in some permanent way by presentation to its chairman or through secretary.

JOHN SEALY,
President Galveston Wharf Co.

## INDEX.

· <b>д,</b>	Pag
Absecon Inlet, N. J.	
lgoma Harbor, Wis.	12
llegheny River Pa	11
llegheny River, Pa	
Charleston	4
lpena Harbor, Mich	13
Itamaha River, Ga	- 7
nacortes Harbor, Wash	10
palachicola Bay, Harbor, and River, Fla	Ī
poon Mouth, Yukon River, Alaska	10
rcadia Harbor, Mich.	13
rkansas River Ark	- 8
rkansas River, Ark	ì
shland Harbor Wis	12
ushland, Harbor, Wisushtabula Harbor, Ohio	14
Billiabuta Harovi, Olivo	-
В.	
Sachelors Slough, Wash	16
Baltimore, Md.:	
Engineering district	2
Improvement of harbor and channels	26, 2
Beaufort Harbor and River, N. C.:	
Seaufort Harbor and Kiver, N. C.: Improvement of harbor Improvement of waterway to Core Sound	4
Improvement of waterway to Core Sound	4
Seaufort Inlet, N. C.:	
Improvement. Improvement of waterway to Norfolk, Va	4
Improvement of waterway to Norfolk, Va	3
Bellingham Bay and Harbor, Wash	16
Big Sandy River, W. Va. and Ky	5, 11
Rig Sunflower River, Miss	8
Biloxi Harbor, Miss	58, €
Blackfish Bayou, Ark	17
Black River, Ark. and Mo	17
	71, 7
Black River, MichBlack Rock Harbor and Channel, N. Y.:	13
Black Rock Harbor and Channel, N. Y.:	
Improvement	2, 14
Improvement of Lake Erie entrance.	14
Black Warrior River, Ala	8
Blackwater River, Fla	Ę
Soston Harbor, Mass	
Brunswick Harbor, Ga	4
Buffalo, N. Y.:	
Engineering district	14
Examination and surveys	14
Improvement of Black Rock Channel and Tonawanda Harbor	14
Improvement of harbor 5	3, 14
С.	
Calcasieu Pass and River, La	(
California Débris Commission.	1
Paloosahatchee River, Fla.	1
Salumet Harbor and River, Ill. and Ind.	1
ALUME HADDI AND INVER, IN ADDI TIME	14

Cape Fear River, N. C.:	Page.
Improvement above Wilmington (locks and dams)	43
Improvement at and below Wilmington	42
Cape Vincent Harbor, N. Y	150
Car shortage	102
Cascades Canal, Columbia River, Oreg.	162
Champlain Lake, N. Y. and Vt.:	
Narrows Port Henry Harbor, N. Y	9
Port Henry Harbor, N. Y	9
Charleston, S. C	29
Engineering district	43
Engineering district. Improvement of harbor. Improvement of waterway to McClellanville.	46
Improvement of waterway to McClellanville	45
Charlevoix Harbor, Mich	135
Charlevoix Harbor, Mich. Charlotte Harbor, N. Y. Chattanooga, Tenn., engineering district.	148
Chattanooga, Tenn., engineering district.	103
Cheboygan Harbor, Mich	139
Cheboygan Harbor, Mich Chesapeake Bay, Md. and Va.:	100
Thimble Shoal	33
Waterway to Beaufort Inlet	34
Waterway to Delaware River	22
Waterway to Delaware River	34
York Spit removal of shoals opposite	25
York Spit, removal of shoals opposite.  Chicago Harbor and River, Ill.	129
Chicago, Ill.:	120
Drainage canal	131
Engineering di trict.	129
Chickasahay River, Miss.	58
Clatskanie River, Oreg.	163
Cleveland, Ohio:	100
	140
Engineering district	141
Clinch River, Tenn.	105
Clinton River, Mich.	139
Commercial statistics. 36, 45,	
Coal mining operations	102
Coal mining operations.  Coenties Reef, New York Harbor, N. Y., removal.	5
Cold Spring Inlet, N. J.	20
Coldwater River, Miss.	82
Colorado River, Ariz.	152
Columbia River, Oreg. and Wash	
Conneaut Harbor, Ohio.	141
Connecticut River, Mass. and Conn.	4
Contentnea Creek, N. C.	41
Contingencies of rivers and harbors, estimate of appropriation	171
Coos Bay, Harbor, and River, Oreg	
Coquille River, Oreg	1 169
Cowlitz River, Wash	164
Consequent City Harbor Cal	160
Crescent City Harbor, Cal	100
Current River, Ark. and Mo	172
Custis Ray Reltimore Md	25
Curtis Bay, Baltimore, Md	146
Cypress Bayou, Tex. and La	71
Cypress Bayou, Tex. and Ba	, 1
D.	
	70
Dallas, Tex., engineering district	70
Dalles-Celilo Canal, Oreg. and Wash.  Delaware Bay and River, Pa., N. J., and Del.:	162
Delaware Bay and River, Pa., N. J., and Del.:	10
Improvement of river at Trenton.	12
Improvement of river, Philadelphia to the sea	13
Waterway to Chesapeake Bay	22
Des Plaines River, Ill	130
Detroit, Mich., engineering district.	136

## INDEX.

	Toge.
Detroit River, Mich. Dismal Swamp Canal, Va. and N. C	
Dismal Swamp Canal, Va. and N. C	
Dredges	
Dredging costs.	13
Drift, removal from New York Harbor	168
Dry Straits, Alaska	
Engineering district	194
Improvement of Duluth-Superior Harbo	124
Dunkirk Harbor, N. Y.	148, 148
2000, 200	
E.	
East River, N. Y., improvement, including	Coenties Reef
Erie Harbor, Pa.	Coenties Reel
Erie Lake:	
Black Rock Harbor, improvement of ent	rance to 149
Channels in waters connecting Great La	kes136, 173
Letimates of appropriations.	
Increases in	20, 31, 34, 82, 146, 165, 17
Reductions in	of appropriation for
Examination of rivers and harbors, estimate	of appropriation for
F.	
Fairhaven Harbor, Mass.	
Fairport Harbor, Ohio.	
Feather River, Cal	
Flathead Lake and River, Mont	107
Flushing Bay and Creek, N. Y.	
Fox River, Wis	120
Frankfort Harbor, Mich.	
r uei situation	
	102
	102
G.	
G. Galveston Bay and Harbor, Tex.	
G. Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of barbor entrance	
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co. ownership and operat	
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo.	
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.	ion of the
Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind.	69 69 ion of the 174 100 134
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapsids, Mich., prograpging district	69 ion of the 174 100 130 134 124,125
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River Mich.	ion of the
G. Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grand River, Mich. Grand Harbor, Wash	100 of the 174 100 130 134 124, 125 134 166
G. Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grand River, Mich. Grays Harbor, Wash.	100 of the 174 100 130 134 124,125 136 136 166
G. Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grand River, Mich. Grays Harbor, Wash.	100 of the 174 100 130 134 124,125 136 136 166
G. Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grand River, Mich. Grays Harbor, Wash.	100 of the 174 100 130 134 124,125 136 136 166
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Gray Harbor, Wash.  Gray River, Wash.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair Mich.	100 of the 174 100 130 130 134 136 136 136 136 137 137 137 137 137 137 137 137 137 137
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Gray Harbor, Wash.  Gray River, Wash.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair Mich.	100 of the 174 100 130 130 134 136 136 136 136 137 137 137 137 137 137 137 137 137 137
Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance. Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grays Harbor, Wash. Grays River, Wash. Grays River, Wash. Great Lakes. Great Sodus Bay, N. Y. Grosse Pointe Channel, Lake St. Clair, Mich. Grouping system. Gulfport Harbor, Miss., improvement of cha	100 of the 174 100 130 130 134 136 136 136 136 137 137 137 137 137 137 137 137 137 137
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Gray Harbor, Wash.  Gray River, Wash.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair Mich.	100 of the 174 100 130 130 134 136 136 136 136 137 137 137 137 137 137 137 137 137 137
Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance. Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind. Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grays Harbor, Wash. Grays River, Wash. Grays River, Wash. Great Lakes Great Sodus Bay, N. Y. Grosse Pointe Channel, Lake St. Clair, Mich. Gruping system. Gulfport Harbor, Miss., improvement of cha	OR   OR   OR   OR   OR   OR   OR   OR
Galveston Bay and Harbor, Tex.: Improvement of Galveston Channel Improvement of harbor entrance. Galveston Wharf Co., ownership and operat Gasconade River, Mo Grand Calumet River, Ill. and Ind. Grand Haven Harbor, Mich Grand Marais, Mich., harbor of refuge Grand Rapids, Mich., engineering district Grays Harbor, Wash. Grays River, Wash. Grays River, Wash. Great Lakes Great Sodus Bay, N. Y. Grosse Pointe Channel, Lake St. Clair, Mich. Gruping system. Gulfport Harbor, Miss., improvement of cha	OR   OR   OR   OR   OR   OR   OR   OR
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich  Grays Harbor, Wash  Grays River, Wash  Great Lakes  Great Sodus Bay, N. Y  Grosse Pointe Channel, Lake St. Clair, Mich  Grouping system  Gulfport Harbor, Miss., improvement of channel Beach, Mich., harbor of refuge  H  Harbor Beach, Mich., harbor of refuge	Off
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich  Grays River, Wash  Grays River, Wash  Great Lakes  Great Sodus Bay, N. Y  Grosse Pointe Channel, Lake St. Clair, Mich  Grouping system  Gulfport Harbor, Miss., improvement of chance of the complex of the comple	136, 173   130, 114   130, 114   130, 114   130, 144   150, 150   150
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance.  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich.  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district.  Grand River, Mich.  Grays Harbor, Wash.  Grays River, Wash.  Great Lakes.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system.  Gulfport Harbor, Miss., improvement of chance.  H.  Harbor Beach, Mich., harbor of refuge.  Hell Galver, River, N. Y.  Al (Illinois & Mississisppi Canada River, Fla.	136, 173   130, 1134   130, 1144   130, 1144   130, 1146   130,
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo.  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Grays River, Wash.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system  Gulfport Harbor, Miss., improvement of channel.  H.  Harbor Beach, Mich., harbor of refuge  Hell Gas East River, N. Y.  In Mich. Harbor of refuge  H.  Harbor Beach, Mich., harbor of refuge  H.	Off
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind  Grand Haven Harbor, Mich  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich  Grays Harbor, Wash  Great Lakes  Great Sodus Bay, N. Y  Grosse Pointe Channel, Lake St. Clair, Mich  Grouping system  Gulfport Harbor, Miss., improvement of chance of the state of the stat	OR   OR   OR   OR   OR   OR   OR   OR
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance.  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich.  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district.  Grand River, Mich.  Grays Harbor, Wash.  Grays River, Wash.  Great Lakes.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system.  Gulfport Harbor, Miss., improvement of chance.  H.  Harbor Beach, Mich., harbor of refuge  Hell Galver, R. Y.  at (Illinois & Mississisppi Canala River, Fla  waii.  Tenn.  Mich.	Control of the
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance.  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich.  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Grays Harbor, Wash.  Grays River, Wash.  Great Lakes.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system.  Gulfport Harbor, Miss., improvement of chance of the control of	GR   GR   GR   GR   GR   GR   GR   GR
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance.  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich.  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Grays Harbor, Wash.  Grays River, Wash.  Great Lakes.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system.  Gulfport Harbor, Miss., improvement of chance of the control of	Control of the
Galveston Bay and Harbor, Tex.:  Improvement of Galveston Channel  Improvement of harbor entrance.  Galveston Wharf Co., ownership and operat Gasconade River, Mo  Grand Calumet River, Ill. and Ind.  Grand Haven Harbor, Mich.  Grand Marais, Mich., harbor of refuge  Grand Rapids, Mich., engineering district  Grand River, Mich.  Grays Harbor, Wash.  Grays River, Wash.  Great Lakes.  Great Sodus Bay, N. Y.  Grosse Pointe Channel, Lake St. Clair, Mich.  Grouping system.  Gulfport Harbor, Miss., improvement of chance of the control of	GR   GR   GR   GR   GR   GR   GR   GR

·	Page.
Hoquiam River, Wash	166
Hoquiam River, Wash.  Housatonic River, Conn.	4
nudson River, N. I	8
Humboldt Bay and Harbor, Cal	159
Huron Harbor, Ohio	140
_	
1,	
Illinois & Michigan Canal. Illinois & Mississippi Canal, Ill	130
Illinois & Mississippi Canal Ill	134
Illinois River. Ill	130
Indiana Harbor, Ind	130
	100
J.	
Toolmonville Ele engineering district	40
Jacksonville, Fla., engineering district	49
Jamaica Bay, N. Y	11
K.	
- ·-	
Kahului Harbor, Hawaii.	169
Kalamazoo River, Mich	136
Kansas City, Mo., engineering district.	92
Kansas River, Kans.	100
Kenosha Harbor, Wis	129
Kentucky kiver, ky	118
Neumer, non. William, resignation from committee	90
Kentucky River, Ky Kettner, Hon. William, resignation from committee Kewaunee Harbor, Wis Keweenaw Canal, across Keweenaw Point, Mich. (Keweenaw Bay-Lake Supe-	129
neweenaw canai, across neweenaw roint, Mich. (Neweenaw Bay-Lake Supe-	104
rior waterway)	124 128
KIMHIKIMHUK DIVEF, WIS	120
L.	
Lake of the Woods, Minn., improvement of Zippel Bay	90
Lake River, Wash	164
Lands, acquisition of for river and harbor improvements	152
Lake River, Wash Lands, acquisition of for river and harbor improvements.  L'Anguille River, Ark.	172
Leai Kiver, Miss	58
Lewis River, Wash	,164
Little Rock, Ark., engineering district	81
Little Sodus Bay, N. Y. Livingstone Channel, Detroit River, Mich	150
Livingstone Unannel, Detroit Kiver, Mich	, 1/3
Logs, removal of, proposed legislation	59 149
Lorain Harbor, Ohio	, 142
Los Angeles, Cal.: Engineering district	150
Improvement of harbor	150
Lower Cedar Point, Md., improvement of Potomac River at	32
Ludington Harbor, Mich.	136
Ludington Harbor, Mich.  McClellanville, S. C., improvement of water to Charleston.	45
Mackinge Harbor Mich	139
Manistee Harbor and River, Mich	134
Manistique Harbor, Mich., improvement	125
Manitowoc Harbor, Wis	127
Mare Island Strait, Cal	158
Marquette Bay and Harbor, Mich	125
Mattituck Harbor, N. Y	11
Maumee Bay and River, Ohio	140
Menominee Harbor and River, Mich, and Wis	129
Menomonee River, Wis	128
Merrimack River, Mass	119
Miami Harbor, Fla	120
Michigan City Harbor, Ind	130 126
Michigan, Lake, canal to Sturgeon Bay	140
Milwaukee, Wis.: Engineering district	125
Improvement of inner and outer harbors	128
IMPLOACMENT OF THESE WAY ACCES HOT DAILY	

## INDEX.

Mississippi River:	Page
Commercial statistics	, 40, 75
Improvement above Minneapolis—	
Brainerd to Grand Rapids	90
Leech and Mississippi Rivers.	90
Reservoir dams at headwaters	87, 90
St. Paul to Minneapolis.	86
Improvement from Minneapolis to Missouri River.	84
Improvement from Missouri River to Ohio River.	83
Improvement of Passes of Mississippi River.	62
Levees, Head of Passes to Cape Girardeau, Mo	96, 98
Towboats, experimental	85
Missouri River	
Mobile, Ala., engineering district	56
Mobile Bay and Harbor, Ala	-56-58
Mokelumne River, Cal Monongahela River, W. Va. and Pa	160
Monongahela River, W. Va. and Pa.	115
Monroe Harbor, Mich	139
Monterey Harbor, Cal	159
Monterey Harbor, Cal. Montgomery, Ala., engineering district.	55
Morenead City Harbor, N. C., improvement.	42
Mormon Channel, San Joaquin River, Cal	160
Muskegon Harbor and River, Mich	136
	200
N.	
<del></del>	
Napa River, Cal	
Narrows of Lake Champlain, N. Y. and Vt.	9
Nashville, Tenn., engineering district	100
Nawiliwili Harbor, Hawaii	170
Neches River. Tex	70
Nehalem Bar and Bay, Oreg	162
Neuse Kiver, N. C	41
New Bedford Harbor, Mass	4
New Haven Harbor, Conn	4
New Orleans, La.	51. 62
Newport News, Va	34
Newport, R. I., engineering district.	4
Newtown Creek, N. Y	10
New York Bay and Harbor, N. Y.:	10
Channel, Staten Island-Hoffman and Swinburne Islands	9, 10
Coenties Reef. East River, improvement, including Coenties Reef.	5, 10
East River improvement including Counties Roof	4
Flushing Bay	_
Hell Gate, East River.	10
Hudson River Channel	4
Hudson River Channel	. 8
Newtown Creek, N. Y.	10
Staten Island-New Jersey Channels.	10
Staten Island Sound	10
New York engineering districts:	
First.	4
Second	9
Third.	12
Magara niver, N. I.:	
Black Rock Channel and Tonawanda Harbor	142
Винаю Нагьог	53
Improvement	146
Surveys, etc.	143
Nome Harbor, Alaska	168
Nome Harbor, Alaska	
General improvement, including main channel of Elizabeth River and	
portions of Southern, Eastern, and Western Branches	33
Improvement of channels to Newbort News	34
Improvement of Thimble Shoal.	33
IMPROVEMENT OF Waterway to Realtfort Injet	34
Norfolk, Va., engineering district.	33
, , , , , , , , , , , , , , , , , , , ,	93

O. Page. Oak Bay to Port Townsend Bay, Wash., waterway..... 166 Oakland Harbor, Cal.
Occoquan Creek, Va.
Ocmulgee River, Ga. 157 33 47 Oconee River, Ga.
Oconto Harbor, Wis.
Ogdensburg Harbor, N. Y.
Ohio River. 47 129 150 105 Olcott Harbor, N. Y.
Olympia Harbor, Wash.
Ontonagon Harbor and River, Mich. 149 166 125 
 Osage River, Mo.
 100

 Oswego Harbor, N. Y
 150

 Ouachita River, Ark. and La.
 71,75
 •••••• Pamlico River, N. C... 41 Pascagoula Harbor and River, Miss.: Pawcatuck River, R. I. and Conn.
Pawtucket (Seekonk) River, R. I.
Pensacola Bay and Harbor, Fla. 4 56 Pentwater Harbor, Mich 136
Petaluma Creek, Cal 159, 161
Petoskey Harbor, Mich 136
Philadelphia, Pa.: Engineering district.
Improvement of Delaware River at..... 13 Pittsburgh, Pa.: Engineering district.
Improvement of harbor. 115 118 Pollock Rip Channel, Mass.

Polson Bay, Flathead Lake, Mont.

Portage Lake, Manistee County, Mich., harbor of refuge, improvement.

Port Clinton Harbor, Ohio.

Port Henry Harbor, N. Y 119 167 135 141 Portland, Oreg., engineering districts: First..... 161 Second..... 
 Porto Rico:
 170

 Engineering district
 170

 Improvement of San Juan Harbor
 170

 Port Townsend Bay to Oak Bay, Wash., waterway
 166

 Port Washington Harbor, Wis
 128

 Port Wing Harbor, Wis
 125

 Potomac River
 32, 33

 Presque Isle Peninsula, Erie, Pa
 146

 Providence Harbor and River, R. I., improvement of Pawtucket (Seekonk)
 4
 Porto Rico: 

 Racine Harbor, Wis., improvement
 128

 Red River, La., Ark., Tex., and Okla
 71, 79

 Redwood City Harbor, Cal.
 161

 Redwood Creek, Cal.
 158

 Richmond Harbor, Cal.
 158

 Rights of way, acquisition of.
 152

 Rogers City Harbor, Mich.
 139

 Bouge River, Mich.
 139

	Page.
Sabine-Neches Canal	70
Sahine River. Tex 5	9-70
Sacramento River, Cal	ian
Sacramento River, Cal. Saginaw River, Mich	139
St. Clair Flats Canal. Lake, and River, Mich	. 139
St Francis River Ark 171	. 172
St. Helena Oreg Calumbia River	165
St. Johns River Wa	50
St Joseph Harbor and River Mich	. 136
St Louis Mo engineering district	83
St. Louis, Mo., engineering district	136
St. Paul, Minn., engineering district	86
San Diam Harbor (a)	151
San Diego Harbor, Cal	140
San Usangian Ray and Harbor Cal.	110
Engineering districts—	
First	161
Third	160
Improvement by removal of rocks.	158
Improvement of Oakland Harbor	157
San Logovin Rivor Col	160
San Joaquin River, Cal San Juan Harbor, P. R. San Luis Obispo Harbor, Cal	170
San Jusi Mariori, 1. 10	17U
San Duis Unispu Hariur, Cal.	, 107
San Pablo Bay, Cal.:	150
Improvement. Improvement, including Mare Island Strait.	158 158
Improvement, including mare island Strait.	
Sapelo Bar and Harbor, Ga	46
Satilla River, Ga	46
Saugatuck Harbor, Mich	136
Savannah Harbor and River, Ga.	46
Schuylkill River, Pa.	16
Seattle, Wash.:	100
Engineering district.  Examinations of east and west waterways in harbor.	165
Examinations of east and west waterways in harbor	168
Sheboygan Harbor, Wis. Ship Island Harbor and Pass, Miss., improvement of pass and channel to Gulf-	127
Saip island Harbor and rass, Miss., improvement of pass and channel to Guit-	
port. Shrewsbury River, N. J.	58
Shrewsbury River, N. J.	12
Siuslaw River, Oreg. 162 Skagit River, Wash 165	, 163
Skagit River, Wash	, 167
Snags, removal of	59
Snake River, Idaho, Oreg., and Wash	162
Snohomish River, Wash	167
South Haven Harbor, Mich	134
South Pass, Mississippi River	62
Southwest Pass. Staten Island Sound (Arthur Kill), N. Y. and N. J.	62
Staten Island Sound (Arthur Kill), N. Y. and N. J.	10
Stockton Channel, San Joaquin River, Cal	160
Stockton Channel, San Joaquin River, Cal. Sturgeon Bay and Lake Michigan Canal, Wis.	126
Suisun Creek or Channel, Cal.	159
Suisun Creek or Channel, Cal	124
Surveys:	
Of rivers and harbors, estimate of appropriation for	171
Resubmission of	119
Swinomish Slough, Wash	167
${f T}_{\cdot}$	
Tacoma Harbor, Wash	166
Tallahatchie River, Misa	82
Tallahatchie River, Miss Tampa Bay and Harbor, Fla	
Tar River, N. C.	51 41
Taunton River, Mass.	
	119

Tennessee River:	Page.
Above Chattanooga.	103
Hales Bar Lock and Dam.  Terminal improvements	90
Thimble Shoal, Chesapeake Bay, Va	, 109 33
Tillamook Bay and Bar, Oreg	162
Toledo Harbor, Ohio	140
Tonawanda Harbor, N. Y	, 146
Transportation lines	109
Transportation of coal by rail	102 127
I WO IN TOOLS IT ALL DOLL, WIS	141
U.	
Union Lake, Wash	166
· · · · · · · · · · · · · · · · · · ·	100
v.	
Vermilion Harbor Ohio	141
Vermilion Harbor, Ohio	71
Virginia coast waterway	21
<b>W</b> .	
Warroad Harbor and River, Minn	90
Washington, D. C.:	
Washington, D. C.: Engineering district. Improvement of Potomac River at	32
Washington Lake, Wash	33 166
Water hyacinths, removal of:	100
From Alabama, Mississippi, Louisiana, and Texas waters	68
From Florida waters	52
Water power:	00
Black Warrior River, Ala., at Dam 17.	89 131
Mississippi River dam between Minneapolis and St. Paul Minn	88
Chicago Drainage Canal Mississippi River, dam between Minneapolis and St. Paul, Minn. St. Marys River, Mich.	137
Water terminals	, 109
Waterways:	40
Reaufort, N. C., to New River, improvement	42 45
Charleston to McClellanville, S. C	22
Core Sound to Beaufort Harbor, improvement	42
Keweenaw Bay to Lake Superior, Mich	124
Norfolk, Va., to Beaufort Inlet, N. C	34
Puget Sound to Lake Washington	165
Virginia coast waterway	21 134
White River, Ark.	172
Wicomico River, Md	32
Willamette River, Oreg	164
Willapa Harbor and River, Wash	166
Wilmington, Del., engineering district	17 20
Wilmington N.C. engineering district	41
Wilmington, N. C., engineering district. Winnebago Lake, Wis., improvement of Fox River	126
Winyah Bay, S. C	43
Y.	
Yamhill River, Oreg	164
Yaquina River, Oreg	, 163 oo
Yazoo River, Miss.	82 165
Youngs Bay, Oreg	167
·	- 1
<b>Z</b> .	
Zippel Bay, Minn	90
AA VITTO CONTO	

•  • . 

•					•	
						•
				•		1
			•	•		
			Ť			,
					•	
						1
						!
						•
						,
						•
	•		•			(
			•	,		
						•
					,	
						1
				•		
		•				
				· ·		
						•
		•				•
						•
•						
	•					

. 

. . .

. · --.

